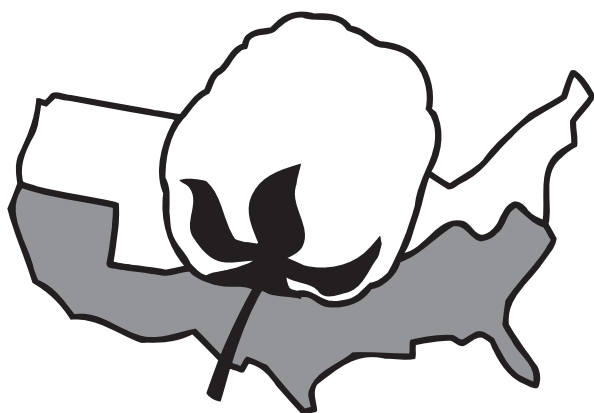


# Beltwide Cotton Conferences



**January 10–12, 2023**  
**New Orleans Marriott Hotel**  
**New Orleans, LA**

**National  
Cotton  
Council**   
OF AMERICA

# Schedule of Events



## FARM CREDIT

Thanks to Farm Credit, our Final Program Sponsor

Tuesday, January 10, 2023		
7:00a–24 hrs.	Speaker Practice Room	Rhythm
8:00a–2:00p	Cotton Specialists Work Group Annual Meeting (By Invitation Only)	Galerie 4
9:00a–5:00p	Conference Registration (Sponsored by Bayer)	Preservation Foyer on Level 2
9:00a–5:00p	Newsroom	Iberville
9:00a–5:00p	Confex Presentation Uploading Room for Speakers	Studio 10
11:00a–12:00p	Consultants Conference Luncheon	Studios 3-4
12:00p–5:30p	Consultants Conference General Session	Salon D
2:00p–3:20p	National Cotton Variety Testing Panel Meeting (By Invitation Only)	Salons A-B
3:00p–3:30p	Coffee Break	Salon D Foyer
6:00p–7:00p	Welcome Reception for All Attendees	Acadia

## Wi-Fi

**Address:** Beltwide Wi-Fi

**Password:** beltwide2023



Special thanks to the **GEORGIA PEANUT COMMISSION** for providing the peanuts in the registration area.

<https://gapeanuts.com/>

# Schedule of Events

Wednesday, January 11, 2023		
7:30a–8:00a	Coffee Break	Galerie 1 Foyer
7:30a–5:00p	Speaker Practice Room	Rhythm
7:30a–5:00p	Conference Registration (Sponsored by Bayer)	Preservation Foyer on Level 2
7:30a–5:00p	Newsroom	Iberville
7:30a–5:00p	Confex Presentation Uploading Room for Speakers	Studio 10
7:50a–5:00p	Cotton Improvement Conference	Studio 7
8:00a– 11:00a	NCGA Technology Committee	Galerie 1
8:00a–12:00p	Consultants Conference General Session	Balcony J-K
8:00a–3:15p	Cotton Agronomy, Physiology & Soils Conference – Student Competition	Galerie 6
8:00a–4:30p	Cotton Weed Science Research Conference (Sponsored by Valent)	Studio 9
8:00a–5:15p	Cotton Insect Research & Control Conf. – Ph.D. Student Comp. & Session A	Salons A-C
8:00a–5:30p	Cotton Engineering-Systems Conference (Sponsored by John Deere)	Studio 4
8:00a–7:00p	Cotton Agronomy, Physiology & Soils Conference	Galerie 5
8:00a–10:00p	Poster Board Session	Salons E-H
8:15a–5:00p	Cotton Sustainability Conference (Sponsored by John Deere)	Salon D
10:00a–10:30a	Coffee Break	Galerie 1 Foyer
10:30a–12:00p	Cotton Economic Outlook Symposium	Galerie 3
10:30a–12:00p	Cotton Utilization Conference	Balcony L
11:00a–7:00p	Cotton Insect Conf. Roundtable, Session B, and Mixer	Galerie 2
1:00p–5:00p	Cotton Quality Measurements Conference	Galerie 4
1:00p–7:00p	Cotton Disease Council (5:00-7:00 p.m. - Business meeting)	Studio 8
1:30p–5:00p	Cotton Economics and Marketing Conference (3 poster presentations)	Galerie 3
1:30p–5:15p	Cotton Ginning Conference (Sponsored by Tama)	Studios 2-3
3:15p–4:00p	Coffee Break in Poster Board Session Room (authors present)	Salons E-H
6:00p–7:00p	Cotton Industry Support Group Meeting	Studios 2-3
6:00p–7:00p	Journal of Cotton Science Editorial Board	Napoleon
7:30p–9:30p	Joint Cotton Breeding Committee	Lafayette

# Schedule of Events

Thursday, January 12, 2023		
7:00a–12:00p	Speaker Practice Room	Rhythm
7:30a–8:00a	Coffee Break	Galerie 1 Foyer
7:30a–1:00p	Conference Registration (Sponsored by Bayer)	Preservation Foyer on Level 2
7:30a–1:00p	Newsroom	Iberville
7:30a–1:00p	Confex Presentation Uploading Room for Speakers – CLOSED – (presenters go to meeting rooms to upload)	Studio 10
8:00a–9:30a	Cotton Improvement Conference	Studio 7
8:00a–9:30a	Cotton Insect Research & Control Conf. – Session A	Salons A-C
8:00a–9:45a	Cotton Insect Research & Control Conf. – Session B	Galerie 2
8:00a–10:00a	Joint Session: Cotton Ginning Conference and Cotton Engineering Systems Conference (Sponsored by Tama and John Deere)	Studios 2-3
8:00a–10:30a	Cotton Agronomy, Physiology & Soils Conference & Awards	Galerie 5
8:00a–12:00p	Poster Board Session	Salons E-H
8:00a–12:00p	Cotton Disease Council	Studio 8
9:45a–10:15a	Cotton Weed Science Conference Graduate Student Awards	Studio 9
10:00a–10:30a	Coffee Break	Galerie 1 Foyer

# CEU Information

BWCC attendees are encouraged to seek CEU credits from the appropriate agency based on an individual's level of participation in BWCC programs.

The CEU application process is now tailored to the CEU requirements of each certifying entity (state regulatory authority or association certifier). Until recently, the application process across entities was relatively uniform. However, application processes have diverged to the extent that it is no longer feasible for BWCC staff to provide blanket CEU application services. BWCC staff will submit the final BWCC program to those states and agencies listed below that may accept the BWCC Technical Conferences program for CEU evaluation. It is up to individuals to submit their application to their desired accreditation authority.

Accrediting Group or State
<b>Certified Crop Adviser (CCA) Program</b> American Society of Agronomy (Soil Science Society of America), 5585 Guilford Road, Madison, WI 53711-5801 (National) Certification Representative--Certification Programs; Phone: 608-268-4953; Fax: 608-273-2081; Toll Free Number: 866-359-9161; Email: ledwardson@sciencesocieties.org
<b>Alabama</b> Department of Agriculture & Industries, Pesticide Management ~ Certification Unit; 1445 Federal Drive, Montgomery, AL 36107; Phone: 334-240-7240; Fax: 334-240-7168; Email: Barbara.gates@agi.alabama.gov
<b>Arizona</b> Department of Agriculture, Office of Pest Management; 1688 West Adams, Phoenix, AZ 85007; Phone: 602-255-3662; Email: rwalker@azda.gov
<b>Arkansas</b> Charles E. Denver, Denver Crop Consultants; P.O. Box 304, Watson, AR 71674; Phone: 870-866-2335; Fax: 870-644-3254; Email: cdagri@hotmail.com
<b>California</b> Department of Pesticide Regulation; P. O. Box 1379, Sacramento, CA 95812; Phone: 916-445-3914; Fax: 916-928-0705; Email: info4ce@cecpm.com
<b>Georgia</b> Department of Agriculture; 19 Martin Luther King, Jr. Dr., Room 410, Atlanta, GA 30334; Phone: 404-656-4960; Fax: 404-657-8378; Email: Adrean.Rhodes@agr.georgia.gov
<b>Louisiana</b> Department of Agriculture & Forestry, Office of Agricultural & Environmental Sciences; 5825 Florida Blvd. Ste. 3003, Baton Rouge, LA 70806-4259; Phone: 225-925-3763; Fax: 225-237-5725; Email: kevin_w@ldaf.state.la.us; Web: www.ldaf.state.la.us
<b>Mississippi</b> Department of Agriculture & Commerce, Bureau of Plant Industry, Pest Control Section; P.O. Box 5207, Mississippi State, MS 39762; Phone: 662-325-0522 or 662-325-7766; FAX: 662-325-0397; Email: russellk@mdac.ms.gov (or) AnnaA@mdac.ms.gov
<b>New Mexico</b> Department of Agriculture, Cert. & Training Specialist; 190 S. Espina, MSC 3AQ, Box 30005, Las Cruces, NM 88003-8005; Phone: 575-646-4837; FAX: 575-646-1540; Email: pesticides@nmda.nmsu.edu
<b>North Carolina</b> Pesticide Section, NCDA & CS; 1090 Mail Service Center, Raleigh, NC 27699-1090; Phone: 919-857-4133; FAX: 919-733-9796; Email: John.Feagans@ncagr.gov

**Oklahoma** Pesticide Certification & Training Administrator, Agriculture, Food and Forestry, Consumer Protection Services;  
2800 N. Lincoln Blvd., Oklahoma City, OK 73105;  
Phone: 405-522-5993; Fax: 405-522-5986;  
Email: ryan.williams@ag.ok.gov

**South Carolina** Special Programs Manager/Recertification Manager  
Department of Pesticide Regulation  
Division of Regulatory & Public Service Programs  
511 Westinghouse Road, Pendleton, SC 29670;  
Phone: 864-646-2150; Fax: 864-646-2179;  
Email: thghslr@clemson.edu

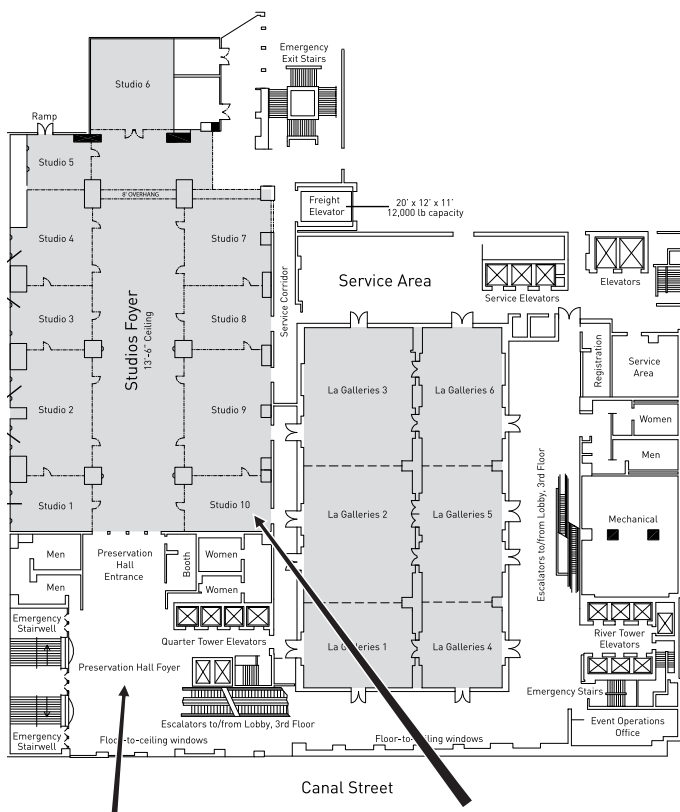
**Tennessee** Department of Agriculture, Ellington Ag. Center, Regulatory Services;  
440 Hogan Road, Melrose Station, Nashville, TN 37204;  
Phone: 615-837-5310; Fax: 615-837-5012;  
Email: mary.borthick@tn.gov

**Texas** Department of Agriculture, Coordinator for Pesticide Certification and Compliance;  
P.O. Box 12847, Austin, TX 78711;  
Phone: 512-463-7692 or 800-835-5832; Fax: 888-216-9865;  
(CEU inquiries) Email: recertcourses@texasagriculture.gov

# New Orleans Marriott Hotel

## Meeting Room Floor Plans

### 2nd Floor



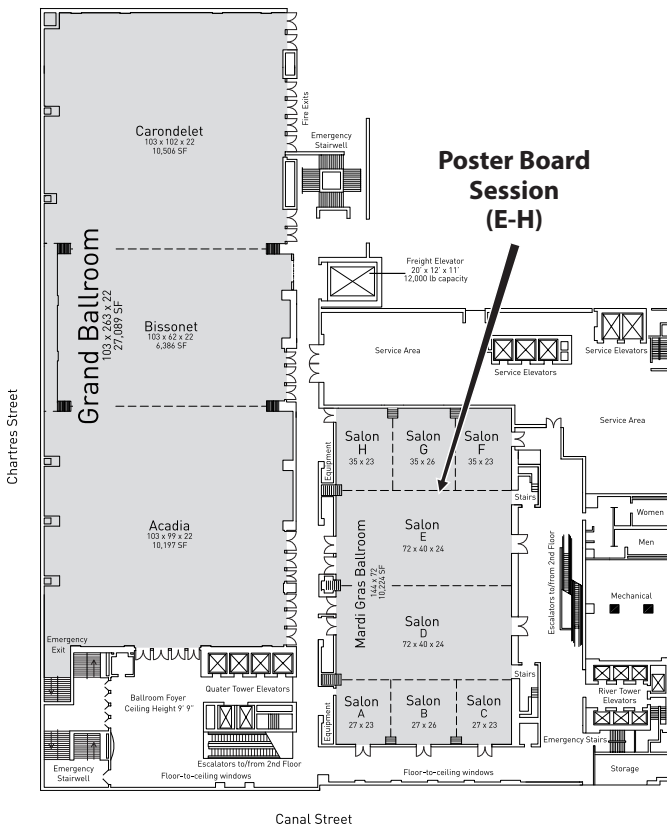
- Beltwide Registration
- Wi-Fi

**Confex Speaker  
Presentation  
Uploading Room**

# New Orleans Marriott Hotel

## Meeting Room Floor Plans

### 3rd Floor



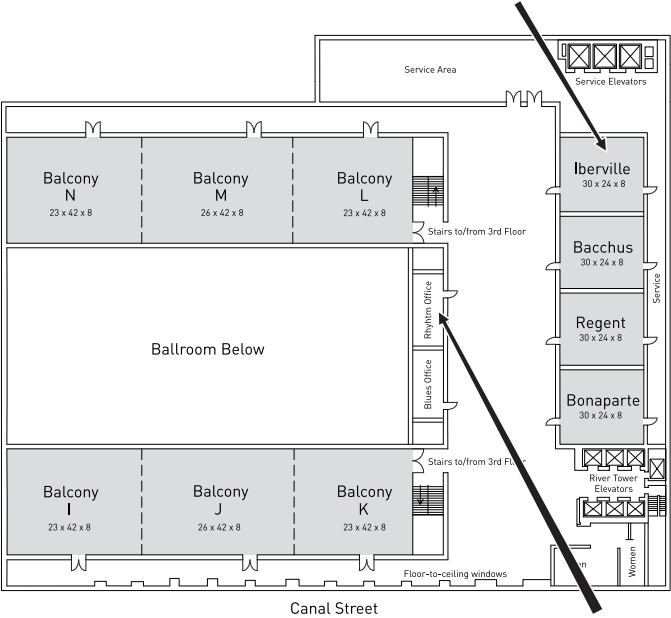


# New Orleans Marriott Hotel

## Meeting Room Floor Plans

### 4th Floor

Newsroom

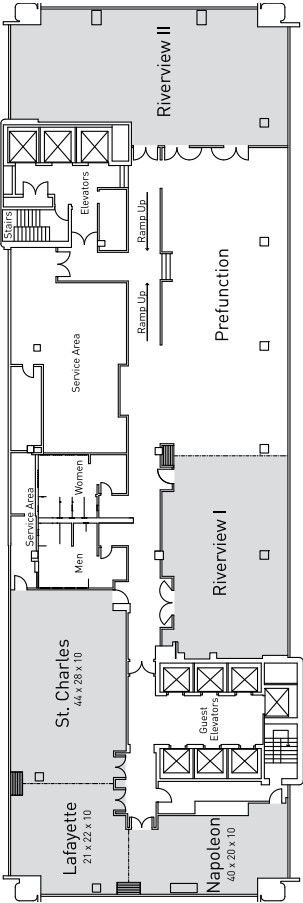


Speaker Practice Room

# New Orleans Marriott Hotel

## Meeting Room Floor Plans

### 41st Floor



# **Cotton Consultants Conference**

## **CONSULTANTS CONFERENCE GENERAL SESSION TUESDAY AFTERNOON**

***Mardi Gras Ballroom Salon D - 12:00 PM-5:30 PM***

**12:00 PM Welcoming Remarks**

**12:05 PM Message from Sponsors - Bayer**

**12:10 PM Message from Sponsors - BASF/Fibermax/Stoneville**

**12:15 PM Message from Sponsors - Corteva/Phytogen**

**12:20 PM Message from Sponsors - FMC**

**12:25 PM Message from Sponsors - Syngenta**

**12:35 PM US Cotton Trust Protocol**

**Gary Adams**, National Cotton Council, Cordova, TN

**1:05 PM Precision Ag: New Technologies**

**Steve Young**, John Deere, Ankeny, IA

**Ryan Moore**, M&M Ag Consulting, Little Rock, AR

**Francis Deville**, Bayer, Saint Louis, MO

**2:05 PM New Technologies in Weed Science**

**Andrew Conner**, BASF Corporation, Washington, DC

**Ryan Locke**, FMC, Philadelphia, PA

**Drake Copeland**, FMC, Philadelphia, PA

**Eric Castner**, FMC, Pauls Valley, OK

**2:30 PM Supply Chain Status for 2023 (Fertilizer and Chemistries)**

**John Campbell**, Southern Crop Production Association, Dawson, GA

**Toby Hlavinka**, American Plant Food Corporation, Galena Park, TX

**3:00 PM Break**

**3:30 PM Pesticides and Endangered Species Act**

**Jack Royal**, Royal's Ag Consulting Company, Leary GA

**Rogers Leonard**, Integrated Crop Consulting, St. Joseph, LA

**4:30 PM Bt Traits and Expression, Pest Control, and Climate**

**Dominic Reisig**, North Carolina State University, Plymouth, NC

**Tyler B Towles**, LSU AgCenter, Winnsboro, LA

**Wednesday, January 11, 2023**

# **Cotton Agronomy, Physiology & Soil Conference**

## **COTTON AGRONOMY, PHYSIOLOGY & SOIL WEDNESDAY EARLY MORNING**

***Galerie 5 - 8:00 AM-10:00 AM***

### **8:00 AM Cotton Irrigation Scheduling Using Agroecosystem Models and Soil Water Content Data**

**Kelly R. Thorp**, USDA-ARS, Maricopa, AZ

### **8:15 AM Optimizing Fertigation Strategies in Texas High Plains Cotton**

**Katie L. Lewis**, Texas A&M AgriLife Research and Extension Center, Lubbock, TX, Murilo Maeda, Texas A & M AgriLife Research, Lubbock, TX and Glen Ritchie, Department of Plant & Soil Science, Texas Tech University, Lubbock, TX

### **8:30 AM Cover Cropping to Save Irrigation Water**

**Carson Roberts**<sup>1</sup>, Drew Gholson<sup>1</sup>, Martin Locke<sup>2</sup> and Dave Spencer<sup>3</sup>, (1) Mississippi State University, Stoneville, MS, (2)USDA-ARS, Oxford, MS, (3) Mississippi State University, Mississippi State, MS

### **8:45 AM Soil Water Dynamics in Semi-Arid Cotton Conservation Systems**

**Christopher Cobos**<sup>1</sup>, Joseph Alan Burke<sup>1</sup>, J. Wayne Keeling<sup>2</sup> and Katie L. Lewis<sup>3</sup>, (1)Texas A&M AgriLife Research, Lubbock, TX, (2)Texas A&M AgriLife Research Center, Lubbock, TX, (3)Texas A&M AgriLife Research and Extension Center, Lubbock, TX

### **9:00 AM Development of an UAS-Based System to Improve Irrigation Water Management in Cotton**

**Murilo Maeda**<sup>1</sup>, Juan Landivar<sup>2</sup>, Craig Bednarz<sup>3</sup>, Mahendra Bhandari<sup>2</sup>, Paxton Payton<sup>4</sup>, James R. Mahan<sup>5</sup>, Robert J. Lascano<sup>6</sup>, Tim Goebel<sup>6</sup>, Avay Risal<sup>1</sup> and Nicholas Duffield<sup>7</sup>, (1)Texas A&M AgriLife Extension, Lubbock, TX, (2)Texas A&M AgriLife Research, Corpus Christi, TX, (3)Texas A&M AgriLife Research and West Texas A&M University, Canyon, TX, (4)Goanna Ag, Goondiwindi, Australia, (5)Private Consultant, Lubbock, TX, (6)USDA-ARS, Lubbock, TX, (7)Texas A&M Institute of Data Science, College Station, TX

### **9:15 AM Actual Evapotranspiration, Fiber Yield and Grass-Reference Crop Coefficients of Cotton Under Different Irrigation Technologies in Western Kansas**

**Jonathan P Aguilar**, Kansas State University, Garden City, KS, Komlan Aguilar, K-State, Garden City, KS, Aleksey P Aguilar, Kansas State University, Manhattan, KS and Koffi Djaman, New Mexico State University, Farmington, NM

### **9:30 AM Cotton Water Management and Cultivars Impact**

**Avat Shekoofa**, Kurt Wedegaertner, Jasmine Strickland and Kendall Sheldon, University of Tennessee, Jackson, TN

### **9:45 AM Short Versus Long-Season Production: Water Use, Nitrogen Uptake**

**Robert B Hutmacher**, University of California Cooperative Extension, Davis, CA and Jorge A. Angeles, University of California, Davis, CA

## **COTTON AGRONOMY, PHYSIOLOGY & SOILS WEDNESDAY EARLY MORNING MS STUDENT COMPETITION**

***Galerie 6 - 8:00 AM-10:00 AM***

**8:00 AM Biomass Accumulation and Nutrient Uptake in an Irrigated System in Eastern Arkansas**

**Carrie Ann Followell**, Trenton L. Roberts, Kyle A Hoegenauer, Carrie C Ortel, Alden D Smartt, Clay Kirkpatrick and Gustavo Henrique Bessa de Lima, University of Arkansas, Fayetteville, AR

**8:15 AM Evaluating Wide Row Production Systems in Georgia**

**Caitlyn B Lawton**, John L. Snider, Phillip Roberts, Yangxuan Liu, Peng Chee and Lavesta C. Hand, University of Georgia, Tifton, GA

**8:30 AM Identifying Reniform Nematode Stress in Cotton Using Remote Technology**

**Morgan N McCulloch**, Texas A&M University, San Angelo, TX, Reagan L. Noland, Texas A&M Agrilife Extension Service, San Angelo, TX, Benjamin M. McKnight, Texas A&M AgriLife Extension Service, College Station, TX and Thomas Isakeit, Texas A&M University, College Station, TX

**8:45 AM Evaluating the Impact of Row Arrangement and Variety on Yield, Yield Components, and Fiber Quality in Georgia Cotton**

**Jordon Montana Hall**, Caitlyn B Lawton, John L. Snider, Phillip Roberts and Lavesta C. Hand, University of Georgia, Tifton, GA

**9:00 AM On-Farm Evaluation of Seeding Rate By Management Zone to Manage within-Field Cotton Growth and Yield Spatial Variability in Georgia**

**Matthew W Tucker**<sup>1</sup>, Simerjeet Virk<sup>1</sup>, Jeremy M. Kichler<sup>2</sup>, Curt Majeski<sup>3</sup> and Lavesta C. Hand<sup>1</sup>, (1)University of Georgia, Tifton, GA, (2)University of Georgia Cooperative Extension, Moultrie, GA, (3)JCM Crop Consulting, Leesburg, GA

**9:15 AM A Fresh Look at Cotton Irrigation**

**Brenna A Cannon**<sup>1</sup>, Jason Warren<sup>1</sup>, Sumit Sharma<sup>2</sup> and Seth A. Byrd<sup>1</sup>, (1) Oklahoma State University, Stillwater, OK, (2)Oklahoma State University, Goodwell, OK

**9:30 AM Crop Rotation Effects on Soil Properties and Cotton (*Gossypium hirsutum*) Yield in Semi-Arid Texas**

**Rebekah A Ortiz**, Texas A&M AgriLife Extension, Lubbock, TX, Texas Tech University, Lubbock, TX, Calvin Trostle, Texas A&M AgriLife Extension, Lubbock, TX, Katie L. Lewis, Texas A&M AgriLife Research and Extension Center, Lubbock, TX and Glen Ritchie, Department of Plant & Soil Science, Texas Tech University, Lubbock, TX

**9:45 AM Greenhouse Gas Emissions Following Manure Application in Organic Cotton**

**Nicholas F Boogades**, Texas A&M AgriLife Research-Lubbock, Lubbock, TX

**COTTON AGRONOMY, PHYSIOLOGY & SOILS  
WEDNESDAY LATE MORNING**

**Galerie 5 - 10:30 AM-12:00 PM**

**10:30 AM Benefits of *Brassica carinata* As a Double Crop for Cotton Rotations**

**Eric D Billman** and B. Todd Campbell, USDA-ARS, Florence, SC

**10:45 AM Influence of Cover Crops on Potassium Uptake in the Southeastern Cotton Belt**

**Brian K. Pieralisi**<sup>1</sup>, Eli B. Hobbs<sup>1</sup>, Darrin M. Dodds<sup>2</sup>, Angus Catchot<sup>2</sup>, Brendan Zurweller<sup>2</sup> and Hunter Perry<sup>3</sup>, (1)Mississippi State University, Starkville, MS, (2)Mississippi State University, Mississippi State, MS, (3)Corteva Agriscience, Leland, MS

**11:00 AM Second Year Results on the Effects of Cotton Stalk Management and Cover Crop Use on Soil Properties and CLRDV Incidence**

**Samuel A Frazier**<sup>1</sup>, Steve M Brown<sup>1</sup>, Kipling S. Balkcom<sup>2</sup> and Alana Lynn Jacobson<sup>3</sup>, (1)Auburn University, Auburn University, AL, (2)USDA-ARS, Auburn, AL, (3)Auburn University, Auburn, AL

**11:15 AM Cover Crops and Nitrogen Effects on Inorganic Nitrogen and Cotton Yield on the Texas High Plains**

**Ameé Bumguardner**, Texas Tech University, Lubbock, TX, Katie L. Lewis, Texas A&M AgriLife Research and Extension Center, Lubbock, TX, Hunter Frame, Virginia Polytechnic Institute & State University, Blacksburg, VA and Bright K Ofori, Tidewater Agricultural Research & Extension Center, Suffolk, VA

**11:30 AM Feasibility of Cover Crops in Dryland Systems of the Texas Rolling Plains**

**Paul DeLaune**<sup>1</sup>, Emi Kimura<sup>2</sup>, Katie L. Lewis<sup>3</sup> and Srinivasulu Ale<sup>1</sup>, (1)Texas A&M AgriLife Research, Vernon, TX, (2)Texas A&M AgriLife Extension Service, Vernon, TX, (3)Texas A&M AgriLife Research and Extension Center, Lubbock, TX

**11:45 AM Nitrogen Fertilization to Maintain Cotton Production Following Cover Crop Use in Semi-Arid West Texas**

**Joseph Alan Burke**<sup>1</sup>, Katie L. Lewis<sup>2</sup>, J. Wayne Keeling<sup>3</sup>, Will Keeling<sup>4</sup> and Donna McCallister<sup>1</sup>, (1)Texas A&M AgriLife Research, Lubbock, TX, (2)Texas A&M AgriLife Research and Extension Center, Lubbock, TX, (3)Texas A&M AgriLife Research Center, Lubbock, TX, (4)Texas A&M AgriLife Extension, Lubbock, TX

**COTTON AGRONOMY, PHYSIOLOGY & SOILS  
WEDNESDAY LATE MORNING  
MS AND PHD STUDENT COMPETITION**

**Galerie 6 - 10:30 AM-12:00 PM**

**10:30 AM Utilizing Precision Agriculture to Improve Sustainability and Reduce Input Costs through Variable Rate Seeding in Cotton Production**

**Kyle Smith**<sup>1</sup>, Michael T. Plumblee<sup>2</sup>, Kendall R. Kirk<sup>2</sup>, Jeremy Greene<sup>1</sup> and John Mueller<sup>2</sup>, (1)Clemson University Edisto REC, Blackville, SC, (2)Clemson University, Blackville, SC

**10:45 AM The Effect of Plant Growth Management on Cotton Susceptibility to Drought during the Flowering and Boll Filling Stages**

**Joshua M. Lee**, John L. Snider, Lavesta C. Hand, Phillip Roberts, A. Stanley Culpepper, Devendra Prasad Chalise, Amrit Pokhrel, Navneet Kaur, Ved Parkash, Gurpreet Virk and R Bailey Lawson, University of Georgia, Tifton, GA

**11:00 AM Pilot Study to Determine Growth Characteristics of Cotton Plants Applied with Amino Acid-Based Biostimulant**

**Matthew Starr**, NC State, Raleigh, NC and Lori Unruh-Snyder, NC State, Zebulon, NC

**11:15 AM Determining the Mechanistic Basis for N Deficiency-Induced Photosynthetic Inhibition in Field-Grown Cotton**

**Ved Parkash**, John L. Snider, Henry Yabbey Sintim, Lavesta C. Hand, Gurpreet Virk and Amrit Pokhrel, University of Georgia, Tifton, GA

**11:30 AM Cotton Response to Nitrogen Application and Planting Method**

**Godfred Ankomah**<sup>1</sup>, Henry Yabbey Sintim<sup>2</sup> and Solomon Amissah<sup>1</sup>, (1) University of Georgia, Tifton Campus, Tifton, GA, (2)University of Georgia, Tifton, GA

**COTTON AGRONOMY, PHYSIOLOGY & SOILS  
WEDNESDAY EARLY AFTERNOON**

**Galerie 5 - 1:00 PM-3:15 PM**

**1:00 PM In Vitro Evaluation of Ammonia Volatilization and Nitrogen Balance from Surface-Applied Urea-Based Fertilizers**

**Nutifafa Adotey**, University of Tennessee, Jackson, TN

**1:15 PM Genotypic and Environmental Contributions to Lint Yield, Yield Components, and Fiber Quality in Upland Cotton**

**Gurpreet Virk**<sup>1</sup>, John L. Snider<sup>1</sup> and Fred M. Bourland<sup>2</sup>, (1)University of Georgia, Tifton, GA, (2)University of Arkansas-NREC, Keiser, AR

**1:30 PM Are There Better Indicators for Planting Seed Quality Than Warm and Cool Germination?**

**Lavesta C. Hand**<sup>1</sup>, Gaylon Morgan<sup>2</sup>, Murilo Maeda<sup>3</sup>, Lori Unruh-Snyder<sup>4</sup>, Guy D. Collins<sup>5</sup>, Keith L. Edmisten<sup>6</sup>, John L. Snider<sup>1</sup>, Steve M Brown<sup>7</sup>, Bradley R Wilson<sup>8</sup>, Matt Foster<sup>9</sup>, Benjamin M. McKnight<sup>10</sup>, Brian K. Pieralisi<sup>11</sup>, Tyson B Raper<sup>12</sup>, Hunter Frame<sup>13</sup>, Michael A. Jones<sup>14</sup>, Randy Norton<sup>15</sup>, David L. Wright<sup>16</sup> and Sheeja George<sup>16</sup>, (1)University of Georgia, Tifton, GA, (2) Cotton Incorporated, Cary, NC, (3)Texas A&M AgriLife Extension, Lubbock, TX, (4)NC State, Zebulon, NC, (5)NC State University, Rocky Mount, NC, (6) North Carolina State University, Raleigh, NC, (7)Auburn University, Auburn University, AL, (8)University of Missouri, Portageville, MO, (9)LSU AgCenter, St. Joseph, LA, (10)Texas A&M AgriLife Extension Service, College Station, TX, (11)Mississippi State University, Starkville, MS, (12)University of Tennessee, Jackson, TN, (13)Virginia Polytechnic Institute & State University, Blacksburg, VA, (14)Clemson University, Florence, SC, (15)University of Arizona, Safford, AZ, (16)University of Florida, Quincy, FL

**1:45 PM Impact of Row Configuration and Planting Population on Cotton Development, Fruit Distribution, Yield, and Fiber Quality**

**William Joseph Rutland**<sup>1</sup>, Brian K. Pieralisi<sup>1</sup>, Darrin M. Dodds<sup>2</sup>, Whitney Crow<sup>3</sup>, Justin McCoy<sup>4</sup>, John Wesley Lowe<sup>2</sup>, Bradley Norris<sup>2</sup>, Eli B. Hobbs<sup>2</sup> and Tyler S Soignier<sup>1</sup>, (1)Mississippi State University, Starkville, MS, (2)Mississippi State University, Mississippi State, MS, (3)Mississippi State University, Stoneville, MS, (4)Mississippi State Univ, Verona, MS

**2:00 PM Evaluation of Cotton Nitrogen Management Strategies with the DSSAT CSM Cropgro-Cotton Model**

Shelby Sangster<sup>1</sup>, Arianna Toffanin<sup>2</sup>, Kenneth Boote<sup>3</sup>, Matthew Gruver<sup>1</sup>, Calvin Perry<sup>4</sup>, Bobby J. Washington<sup>5</sup> and **George Vellidis**<sup>1</sup>, (1)University of Georgia, Tifton, GA, (2)University of Padova, Legnaro, Italy, (3)University of Florida, Gainesville, FL, (4)Superintendent, Stripling Irrigation Research Park, University of Georgia, Camilla, GA, (5)University of Georgia, Camilla, GA

**2:15 PM Evaluation of Biohold (STO-1106) to Reduce Heat Stress Related Loss of Cotton Fruiting Structures**

**Michael D. Rethwisch**<sup>1</sup>, Kassandra W. Allan<sup>1</sup>, Aaron Palmer<sup>2</sup> and Grant Chaffin<sup>3</sup>, (1)University of California Cooperative Extension, Blythe, CA, (2) Bryce Farms, Blythe, CA, (3)Chaffin Farms, Blythe, CA

**2:30 PM Effects of Elevated Crop Canopy Temperatures on Cotton Production in the Low Deserts of Arizona.**

**Randall Norton**<sup>1</sup>, Blase Evancho<sup>2</sup> and Kaleb Bryce<sup>1</sup>, (1)The University of Arizona, Safford, AZ, (2)PGH, Cochise, AZ

**2:45 PM Evaluation of Ten Egyptian Cotton Varieties and Experimental Lines for Yield, Quality and Bacterial Blight Resistance**  
**Maria Abdalla**, Agricultural Research Corporation, Wad medani, Sudan

**3:00 PM Digital Twins Models for in-Season Cotton Management and Marketing**

**Juan Landivar**, Agrilife Research Center Texas A&M, Corpus Christi, TX, Mahendra Bhandari, Texas A&M AgriLife-Research, Corpus Christi, TX, Jinha Jung, Purdue University, West Lafayette, IN and Murilo Maeda, Texas A&M AgriLife Extension, Lubbock, TX

**COTTON AGRONOMY, PHYSIOLOGY & SOILS  
WEDNESDAY EARLY AFTERNOON  
PHD STUDENT COMPETITION**

**Galerie 6 - 1:00 PM-3:15 PM**

**1:00 PM Evaluation of Subsurface Drainage in a Cotton Production System**

**Tyler S Soignier**<sup>1</sup>, Brian K. Pieralisi<sup>1</sup>, Darrin M. Dodds<sup>2</sup>, Jason Krutz<sup>3</sup>, Dave Spencer<sup>2</sup>, Whitney Crow<sup>3</sup>, William Joseph Rutland<sup>1</sup>, Eli B. Hobbs<sup>1</sup> and Bradley Norris<sup>2</sup>, (1)Mississippi State University, Starkville, MS, (2)Mississippi State University, Mississippi State, MS, (3)Mississippi State University, Stoneville, MS

**1:15 PM Efficacy of Cotton Defoliation and Droplet Deposition Applied By Spray Drone and Airplane**

**Livia Ianhez Pereira**, Steve Li, Ryan Langemeier and Justin McCaghren, Auburn University, Auburn, AL

**1:30 PM Effect of Planting Date, Seeding Rate, and Seed Size on Cotton Growth and Yield in South Carolina**

**Sarah K. Holladay**<sup>1</sup>, Michael T. Plumblee<sup>2</sup>, Michael A. Jones<sup>1</sup> and Mike Marshall<sup>2</sup>, (1)Clemson University, Florence, SC, (2)Clemson University, Blackville, SC

**1:45 PM Impacts of Late Season Low Temperatures on Cotton (*Gossypium hirsutum*) Production**

**Brooke E Shumate**, Texas A&M AgriLife, Lubbock, TX, Murilo Maeda, Texas A&M AgriLife Extension, Lubbock, TX, Brendan Kelly, Texas A&M AgriLife Research, Lubbock, TX and Jourdan M. Bell, Texas A&M AgriLife, Amarillo, TX

**2:00 PM Photosynthetic Thermotolerance in Diverse Cotton Genotypes**

**Navneet Kaur**<sup>1</sup>, John L. Snider<sup>1</sup>, Andrew Paterson<sup>2</sup>, Gurpreet Virk<sup>1</sup> and Ved Parkash<sup>1</sup>, (1)University of Georgia, Tifton, GA, (2)College of Agricultural and Environmental Sciences, The University of Georgia, Athens, GA

**2:15 PM Estimation of Canopy Nitrogen Content in Dryland Cotton from Sentinel-2 Images**

**Rupak Karn**<sup>1</sup>, Wenxuan Guo<sup>2</sup>, Oluwatola I Adediji<sup>1</sup>, Katie L. Lewis<sup>3</sup>, Sanjit Deb<sup>4</sup>, Glen Ritchie<sup>4</sup> and Chenggang Wang<sup>5</sup>, (1)Texas Tech University, Lubbock, TX, (2)Department of Plant and Soil Science, Texas Tech University, Lubbock, TX, (3)Texas A&M AgriLife Research and Extension Center, Lubbock, TX, (4)Department of Plant & Soil Science, Texas Tech University, Lubbock, TX, (5)Department of Agricultural and Applied Economics, Texas Tech University, Lubbock, TX

**2:30 PM Interactive Effects of Different Plant Growth Regulator and Nutrient Rates on Cotton Yield and Fiber Quality**

**Solomon Amissah**, Henry Yabbey Sintim and Godfred Ankomah, University of Georgia, Tifton, GA

**2:45 PM Understanding the Changes in Cotton Biomass, Lint, and Yield Components over the Past 70 Years**

**Jagdeep Singh**<sup>1</sup>, Audrey V. Gamble<sup>1</sup>, Steve M Brown<sup>2</sup>, Jenny Koebernick<sup>1</sup>



**Wednesday, January 11, 2023**

and Alvaro Sanz-Saez<sup>1</sup>, (1)Auburn University, Auburn, AL, (2)Auburn University, Auburn University, AL

**COTTON AGRONOMY, PHYSIOLOGY & SOILS  
WEDNESDAY LATE AFTERNOON**

***Galerie 5 - 4:00 PM-5:15 PM***

**4:00 PM Multi-Environment Assessment of Cultivar Variation in Extrafloral Nectar Production in Cotton**

**John L. Snider<sup>1</sup>**, Akanksha Sehgal<sup>2</sup>, Gurpreet Kaur<sup>2</sup>, Gurbir Singh<sup>2</sup>, Haydee E Laza<sup>3</sup>, Esmaeil Amiri<sup>2</sup>, Wenxuan Guo<sup>4</sup>, Gurpreet Virk<sup>1</sup>, Daryl Chastain<sup>5</sup>, Ved Parkash<sup>1</sup>, Navneet Kaur<sup>1</sup> and Devendra Prasad Chalise<sup>1</sup>, (1)University of Georgia, Tifton, GA, (2)Mississippi State University, Stoneville, MS, (3) Texas Tech, Lubbock, TX, (4)Department of Plant and Soil Science, Texas Tech University, Lubbock, TX, (5)USDA-National Center for Alluvial Aquifer Research, Leland, MS

**4:15 PM Nitrogen Calibration Strip Based Site-Specific N Management in Cotton Using Soil Mapping and Mid-Season Proximal and Remote Sensing**

**Jeusha Nafi<sup>1</sup>**, Theodor L. Stansly<sup>1</sup>, Sudeep S. Sidhu<sup>2</sup>, Sheeja George<sup>1</sup>, Ian Small<sup>1</sup> and David L. Wright<sup>1</sup>, (1)University of Florida, Quincy, FL, (2)University of Florida, Live Oak, FL

**4:30 PM In-Field Performance Evaluation of Precision Planting Smart-Depth at Varying Seeding Depths in Cotton**

**Simerjeet Virk<sup>1</sup>**, Mathew Tucker<sup>1</sup> and Jeremy M. Kichler<sup>2</sup>, (1)University of Georgia, Tifton, GA, (2)University of Georgia Cooperative Extension, Moultrie, GA

**4:45 PM Lessons from the Introgression of *G. hirsutum* RNAi O-Methyl Transferase Construct into *G. barbadense***

**Tanya A Wagner<sup>1</sup>**, Lorraine Puckhaber<sup>1</sup>, Alois A. Bell<sup>2</sup>, Clint W Magill<sup>3</sup> and Jinggao Liu<sup>2</sup>, (1)USDA-ARS-ICCDRU, College Station, TX, (2)USDA-ARS ICCDRU, College Station, TX, (3)Texas A&M University, College Station, TX

**5:00 PM Planting Date Critical for Rye in a Conservation Tillage Peanut Cotton Rotation**

**Kipling S. Balkcom**, USDA-ARS, Auburn, AL, Quentin D. Read, USDA-ARS, Raleigh, NC and Audrey V. Gamble, Auburn University, Auburn, AL

**COTTON AGRONOMY & PHYSIOLOGY BUSINESS MEETING**

***Galerie 5 - 5:15 PM-7:00 PM***

# **Cotton Consultants Conference**

**CONSULTANTS CONFERENCE GENERAL SESSION  
WEDNESDAY MORNING**

***Balconies J & K - 8:00 AM-12:00 PM***

**8:00 AM Regulatory Update**

**Don Parker**, National Cotton Council, Cordova, TN

**9:00 AM Thryvon Panel**

**Wes Briggs**, Briggs Crop Protection, Inc., Bainbridge, GA  
**Hank Jones**, RHJ Ag Services, LLC., Winnsboro, LA  
**Tyler Hydrick**, Ag Assistants, LLC, Jonesboro, AR  
**Rogers Leonard**, Integrated Crop Consulting, St. Joseph, LA  
**Eddie Lomax**, Lomax Ag Consulting Inc., Steele, MO  
**Timothy Dabbert**, Bayer Crop Science, Creve Couer, MO

**10:00 AM Break**

**10:30 AM Weather Risk in US Cotton Production**

**Eric Snodgrass**, Nutrien Ag Solutions, Champaign, IL

**11:00 AM Weed Control Issues Panel**

**Donnie K. Miller**, LSU Ag Center, St. Joseph, LA  
**Scott Nolte**, Texas A&M University, College Station, TX

# Cotton Disease Council

## COTTON DISEASE COUNCIL STUDENT PAPER COMPETITION

*Preservation Hall Studio 8 - 1:00 PM-3:30 PM*

**1:00 PM Investigating the Interaction between Nutrient Stress and Cotton Leafroll Dwarf Virus Infection and the Effects on Yield Loss and Symptoms**

**Kelly Schlarbaum**<sup>1</sup>, Kassie Conner<sup>1</sup>, Audrey V. Gamble<sup>1</sup>, Kipling S. Balkcom<sup>2</sup>, David Fang<sup>3</sup> and Alana Lynn Jacobson<sup>1</sup>, (1)Auburn University, Auburn, AL, (2)USDA-ARS, Auburn, AL, (3)USDA-ARS, Southern Regional Research Center, New Orleans, LA

**1:15 PM Visual Virus: Cotton Leafroll Dwarf Virus Clone Containing GFP Can Be Visually Tracked during Infection.**

**Wilson Clark**, Kaylee Hirsch and Kathleen Martin, Auburn University, Auburn, AL

**1:30 PM Dynamics on Collection of *Ramularia areola***

**Elias Zuchelli**, Jackson P Adcock, Shelia Kay Little and Heather M Kelly, University of Tennessee, Jackson, TN

**1:45 PM Relative in-Field Susceptibility of Popular Cotton Varieties to Common Plant-Parasitic Nematodes in South Carolina**

**Bennett C Harrelson**, Michael T. Plumblee, John Mueller and Saleh M. Ahmed, Clemson University, Blackville, SC

**2:00 PM Exposure to Parasitic Nematodes Modifies Cotton Growth and Defense across Different Soil Microbial Communities**

**Morgan N Thompson**<sup>1</sup>, Adriane N Fifield<sup>1</sup>, Charles P.-C. Suh<sup>2</sup> and Anjel M Helms<sup>1</sup>, (1)Texas A&M University, College Station, TX, (2)USDA-ARS ICCDRU, College Station, TX

**2:15 PM Influence of Carinata Winter Cropping on Reniform Nematode**

**Rebeca Sandoval-Ruiz**, University of Florida, Gainesville, FL

**2:30 PM Winter Cover Crop, Biological Control, and *Meloidogyne incognita* Effects on Sweetpotato Yield and Quality**

**Claire Schloemer**<sup>1</sup>, Kathy S Lawrence<sup>2</sup>, Scott Graham<sup>1</sup>, Koon-Hui Wang<sup>3</sup> and Brent Sipes<sup>3</sup>, (1)Auburn University, Auburn, AL, (2)Auburn University, Auburn University, AL, (3)University of Hawaii, Honolulu, HI

**Wednesday, January 11, 2023**

**2:45 PM Impact of Cover Crop Management Decisions on Select Soil Biota**

**Shelly Neill Pate<sup>1</sup>**, Heather M Kelly<sup>1</sup> and Lesley A Schumacher<sup>2</sup>, (1)University of Tennessee, Jackson, TN, (2)USDA, Jackson, TN

**3:00 PM Assessment of Bt and Non-Bt Corn Hybrids on Mycotoxin Production**

**Autumn A. McLaughlin**, Heather M Kelly, Sebe Brown and Scott D. Stewart, University of Tennessee, Jackson, TN

**3:15 PM Soybean Yield Effects of Fungicide Application in Drought Stressed Environments**

**Jackson P Adcock**, Heather M Kelly and Avat Shekoofa, University of Tennessee, Jackson, TN

**COTTON DISEASE COUNCIL  
WEDNESDAY LATE AFTERNOON**

*Preservation Hall Studio 8 - 4:00 PM-5:00 PM*

**4:00 PM Observations on Cotton Seedling Diseases in Mississippi during 2021 and 2022**

**Thomas W. Allen**, Mississippi State University, Delta Research and Extension Center, Stoneville, MS, Alejandra M Jimenez Madrid, Mississippi State University, Stoneville, MS and Tessie Wilkerson, Mississippi State University-Delta Research and Extension Center, Stoneville, MS

**4:15 PM Distribution of Areolate Mildew in Mississippi during 2022**

**Alejandra M Jimenez Madrid<sup>1</sup>**, Tessie Wilkerson<sup>2</sup> and Tom Allen<sup>1</sup>, (1) Mississippi State University, Stoneville, MS, (2)Mississippi State University-Delta Research and Extension Center, Stoneville, MS

**4:30 PM Areolate Mildew in Tennessee Cotton**

**Heather M Kelly**, Elias Zuchelli, Kendall Sheldon and Avat Shekoofa, University of Tennessee, Jackson, TN

**4:45 PM Evaluating the Impact of Fungicide Application Timings on Areolate Mildew and Target Spot on Cotton in Alabama**

**Amanda Strayer-Scherer<sup>1</sup>**, Katherine Burch<sup>1</sup> and Hunter Mote<sup>2</sup>, (1)Auburn University, Auburn, AL, (2)Auburn University, Shorter, AL

**COTTON DISEASE COUNCIL BUSINESS MEETING**

*Preservation Hall Studio 8 - 5:00 PM-7:00 PM*

# **Cotton Economics and Marketing Conference**

**COTTON ECONOMIC OUTLOOK SYMPOSIUM**

*Galerie 3 - 10:30 AM-12:00 PM*

**10:30 AM Cotton Marketer of the Year Award**

**O. A. Cleveland**, Mississippi State University, Mississippi State, MS

**10:40 AM Cotton Policy Update**

**Bart Fischer**, Texas A&M University, College Station, TX

**11:05 AM World Cotton Outlook**

**Jarral Neeper**, Trucott, Bakersfield, CA and O. A. Cleveland, Mississippi State University, Mississippi State, MS

**11:30 AM U.S. Cotton Export Market and Logistics**

**Buddy Allen**, ACSA, Memphis, TN

**COTTON ECONOMICS AND MARKETING  
WEDNESDAY EARLY AFTERNOON**

**Galerie 3 - 1:30 PM-3:15 PM**

**1:30 PM Estimating Cotton End-Use**

**Jon Devine**, Cotton Incorporated, Cary, NC

**1:45 PM Spot Market Integration and Price Transmission Among  
Major Cotton Trading Countries**

**Susmitha Kalli**<sup>1</sup>, Gopinath Munisamy<sup>1</sup>, Yangxuan Liu<sup>2</sup> and Berna Karali<sup>1</sup>, (1) University of Georgia, Athens, GA, (2) University of Georgia, Tifton, GA

**2:00 PM Analysis of Cotton Ginning Costs By Technology**

**Sushil C Sapkota**<sup>1</sup>, Ram N Acharya<sup>1</sup>, Derek P. Whitelock<sup>2</sup>, Carlos B. Armijo<sup>2</sup> and Jaya Shankar Tumuluru<sup>2</sup>, (1) New Mexico State University, Las Cruces, NM, (2) USDA-ARS Southwestern Cotton Ginning Research Laboratory, Mesilla Park, NM

**2:15 PM Managerial Challenges in Cotton Cooperative Gins: An  
Analysis of Trust and Social Capital**

**Frank Seo** and Darren Hudson, Texas Tech University, Lubbock, TX

**2:30 PM Economic Analysis on the Effect of Cropping System and  
Irrigation on Verticillium Wilt**

**Oluwaseun Ooduniyi**, Texas Tech University, Lubbock, TX, Donna McCallister, Texas Tech University, Lubbock, TX, Texas A&M AgriLife Research, Lubbock, TX, Will Keeling, Texas A&M AgriLife Extension, Lubbock, TX and Terry Wheeler, Texas A&M AgriLife Research, Lubbock, TX

**COTTON ECONOMICS AND MARKETING  
WEDNESDAY LATE AFTERNOON**

**Galerie 3 - 4:00 PM-5:00 PM**

**4:00 PM Estimating Yield Response to Plant and Harvest Timing Using  
Observational Field-Level Data**

**Kaitlyn Urban**<sup>1</sup>, Terry W Griffin<sup>1</sup> and Bill Robertson<sup>2</sup>, (1) Kansas State University, Manhattan, KS, (2) University of Arkansas System Division of Ag, Newport, AR

**4:15 PM Revenue Potential from Multiple-Pass Versus Single-Pass  
Cotton Harvest Systems**

**Terry W Griffin** and Elizabeth A. Yeager, Kansas State University, Manhattan, KS

**4:30 PM The Regional Economic Impact of Crop Insurance on the  
Texas High Plains in 2022**

**Rachel Wade** and Darren Hudson, Texas Tech University, Lubbock, TX

**COTTON ECONOMICS AND MARKETING POSTERS**

**Galerie 3 - 1:30 PM-5:00 PM**

**1. Trends in Crop Insurance Loss Ratios for Cotton**

**Michael A. Deliberto** and Brian Hilbun, LSU AgCenter, Baton Rouge, LA

**2. Utilizing the K-State Cotton Harvest Decision Tool to Make on Farm  
Decision: A Static Tour of the Dashboard**

**Kaitlyn Urban**, Kansas State University, Manhattan, KS

**3. Economic Analysis of Organic Cotton and Peanut Production in the Texas High Plains**

**William Keeling**, Texas A&M AgriLife Extension, Lubbock, TX, Katie L. Lewis, Texas A&M AgriLife Research and Extension Center, Lubbock, TX, Paul DeLaune, Texas A&M AgriLife Research, Vernon, TX, Emi Kimura, Texas A&M AgriLife Extension Service, Vernon, TX and Terry Gentry, Texas A&M University, College Station, TX

# **Cotton Engineering-Systems Conference**

**COTTON ENGINEERING-SYSTEMS  
WEDNESDAY EARLY MORNING**

*Preservation Hall Studio 4 - 8:00 AM-9:30 AM*

**8:00 AM Changes in Quality of Cottonseed from Post-Harvest Processing**

**Janie Moore**, Texas A&M, College Station, TX

**8:15 AM In-Season Cotton Growth Forecasting with Neural Network Models**

**Krishna Gadepally**<sup>1</sup>, Sambandh Dhal<sup>1</sup>, Mahendra Bhandari<sup>2</sup>, Kevin Nowka<sup>1</sup> and Juan Landivar<sup>2</sup>, (1)Texas A&M, College Station, TX, (2)Texas A&M AgriLife Research, Corpus Christi, TX

**8:30 AM Assessment of Data Clustering Algorithms Applied to Associate Multi-Environment Cotton Cultivar Trials**

**Raul Sebastian Martinez**<sup>1</sup>, Robert G. Hardin IV<sup>1</sup>, Edward M. Barnes<sup>2</sup>, Jason K. Ward<sup>3</sup>, Wesley M Porter<sup>4</sup>, Michael T. Plumblee<sup>5</sup> and John D. Wanjura<sup>6</sup>, (1) Texas A&M University, College Station, TX, (2)Cotton Incorporated, Cary, NC, (3)North Carolina State University, Raleigh, NC, (4)University of Georgia, Tifton, GA, (5)Clemson University, Blackville, SC, (6)USDA-ARS Cotton Production and Processing Research Unit, Lubbock, TX

**8:45 AM Application of DSSAT Model to Simulate Crop Yield and Water Use Efficiency in Different Cropping Systems in the Southern High Plains of Texas**

**Bishnu P Ghimire**, Texas Tech University, Lubbock, TX and Wenxuan Guo, Department of Plant and Soil Science, Texas Tech University, Lubbock, TX

**9:00 AM Codifying Workflows for Cotton Data Organization, Management, and Curation: The Maricopa Example**

**Kelly R. Thorp**, USDA-ARS, Maricopa, AZ

**9:15 AM Cotton Irrigation Scheduling: Which Method Is a Best Fit? A Continued Study, Year 3**

**Wesley M Porter**<sup>1</sup>, Calvin Perry<sup>2</sup> and John L. Snider<sup>1</sup>, (1)University of Georgia, Tifton, GA, (2)Superintendent, Stripling Irrigation Research Park, University of Georgia, Camilla, GA

**COTTON ENGINEERING-SYSTEMS  
WEDNESDAY LATE MORNING**

*Preservation Hall Studio 4 - 10:00 AM-11:45 AM*

**10:00 AM Monitoring Real-Time Weather Data on a Sprayer to Prevent Off-Target Herbicide Application**

**Myles Moore**, Robert G. Hardin and Scott Nolte, Texas A&M University, College Station, TX

**10:15 AM Camera System for Plastic Detection on the Cotton Harvester**  
**Cody Wells**, Md Zafar Iqbal and Robert G. Hardin, Texas A&M University, College Station, TX

**10:30 AM Robotic Real-Time Weed Detection and Removal Using Deep Learning and Laser**  
**Canicius Mwitta** and Glen C. Rains, University of Georgia, Tifton, GA

**10:45 AM Developing a Prototype of Cost-Effective Artificial Intelligence System for Real-Time Cotton Weed Detection**  
**Haifeng Wang**, Mississippi State University, Mississippi State, MS

**11:00 AM Utilization of Machine Learning for Palmer Amaranth Identification for Understanding Effects on Cotton Fiber Quality**  
**Luke M Fuhrer**<sup>1</sup>, Wesley M Porter<sup>1</sup>, Joby Czarnecki<sup>2</sup>, A. Stanley Culpepper<sup>1</sup>, Taylor M Randell<sup>1</sup>, Joe W. Thomas<sup>3</sup> and Christopher D. Delhom<sup>4</sup>, (1)University of Georgia, Tifton, GA, (2)Mississippi State University, Starkville, MS, (3)USDA ARS, Stoneville, MS, (4)USDA-ARS Southern Regional Research Center, New Orleans, LA

**11:15 AM Spray Technology and Application Considerations for Site-Specific Plant Growth and Weed Management in Cotton**  
**Simerjeet Virk**, Ravi Meena, Mathew Tucker and Glen C. Rains, University of Georgia, Tifton, GA

**11:30 AM Finite Element Analysis on the Designed Unit of Cotton Harvesting Autonomous Platform (CHAP2.0)**  
**Mohd Fazly Mail**<sup>1</sup>, Joe Mari J. Maja<sup>1</sup>, Gilbert A. Miller<sup>1</sup>, Michael W. Marshall<sup>2</sup>, Matthew Cutulle<sup>3</sup> and Edward M. Barnes<sup>4</sup>, (1)Clemson University, Blackville, SC, (2)Clemson University - Edisto REC, Blackville, SC, (3)Clemson University, Charleston, SC, (4)Cotton Incorporated, Cary, NC

**COTTON ENGINEERING-SYSTEMS  
WEDNESDAY EARLY AFTERNOON**

***Preservation Hall Studio 4 - 1:00 PM-3:15 PM***

**1:00 PM Leveraging 3D Deep Learning and Data Science for Cotton Plant Architectural Trait Characterization**  
**Changying Li**, College of Engineering, The University of Georgia, Athens, GA and Farah Saeed, University of Georgia, Athens, GA

**1:15 PM Implementation of a Vision-Based Detection and Removal System for Controlling Weeds in Cotton Production Systems**  
**Grace McCormick Friday**<sup>1</sup>, John Wesley Lowe<sup>1</sup>, Gary Daniel Chessser, Jr.<sup>2</sup> and Brian K. Perialisi<sup>3</sup>, (1)Mississippi State University, Mississippi State, MS, (2)Mississippi State University Agricultural & Biological Engineering, Mississippi State, MS, (3)Mississippi State University, Starkville, MS

**1:30 PM Impact of Soil Sampling Grid Size on Efficacy and Economics of Site-Specific Nutrient Application in Cotton**  
**Matthew W Tucker**<sup>1</sup>, Simerjeet Virk<sup>1</sup>, Glendon Harris<sup>1</sup>, Matthew R Levi<sup>2</sup> and Jason Lessl<sup>3</sup>, (1)University of Georgia, Tifton, GA, (2)University of Georgia, Athens, GA, (3)AESL, Athens, GA

**1:45 PM Identification of Cotton Fields Using Sentinel-2 Satellite Imagery and Machine Learning for Advancing Boll Weevil Eradication**  
**Chenghai Yang**, USDA-ARS, College Station, TX and Charles P.-C. Suh, USDA-ARS ICCDRU, College Station, TX

**2:00 PM A New Cotton Defoliation Sprayer Using Unmanned Ground Vehicle**  
**Jyoti Neupane**<sup>1</sup>, Joe Mari J. Maja<sup>1</sup>, Gilbert A. Miller<sup>1</sup>, Michael W. Marshall<sup>2</sup>, Matthew Cutulle<sup>3</sup>, Jun Luo<sup>4</sup> and Edward M. Barnes<sup>5</sup>, (1)Clemson University,

Blackville, SC, (2)Clemson University - Edisto REC, Blackville, SC, (3)Clemson University, Charleston, SC, (4)Clemson University, Clemson, SC, (5)Cotton Incorporated, Cary, NC

**2:15 PM Effect of Schlagel Closing Wheels upon Cotton Production**

**Sawyer Przilas**<sup>1</sup>, Tyson Feagler<sup>2</sup>, Marshall Tolleson<sup>3</sup>, Joshua Ray Johnson<sup>1</sup>, Alexis Schultz<sup>1</sup>, Wayne Smith<sup>1</sup> and Steve Hague<sup>1</sup>, (1)Texas A&M University, College Station, TX, (2)Schlagel Manufacturing, Torrington, WY, (3)Texas A&M AgriLife Research, College Station, TX

**2:30 PM Development of a Moisture and Temperature Monitoring System for Round Cotton Modules**

**Md Zafar Iqbal**<sup>1</sup>, Robert G. Hardin<sup>1</sup>, Jason K. Ward<sup>2</sup>, John D. Wanjura<sup>3</sup> and Edward M. Barnes<sup>4</sup>, (1)Texas A&M University, College Station, TX, (2)North Carolina State University, Raleigh, NC, (3)USDA-ARS Cotton Production and Processing Research Unit, Lubbock, TX, (4)Cotton Incorporated, Cary, NC

**2:45 PM Multi-Position Round Module Moisture Sensing**

**Max Hooks**, NC State University, Raleigh, NC, Jason K. Ward, North Carolina State University, Raleigh, NC, Robert G. Hardin, Texas A&M University, College Station, TX, John D. Wanjura, USDA-ARS Cotton Production and Processing Research Unit, Lubbock, TX and Edward M. Barnes, Cotton Incorporated, Cary, NC

**3:00 PM Evaluation of an End-Effector Design and Quantification of Vacuum Conveying System for Robotic Cotton Harvesting**

**Shekhar Thapa**, Glen C. Rains, Wesley M Porter and Simerjeet Virk, University of Georgia, Tifton, GA

**COTTON ENGINEERING-SYSTEMS  
WEDNESDAY LATE AFTERNOON**

*Preservation Hall Studio 4 - 4:00 PM-5:30 PM*

**4:00 PM Using UAS Multispectral Imagery to Estimate Yield-Determining Physiological Parameters of Cotton**

**Amrit Pokhrel**, Simerjeet Virk, John L. Snider, George Vellidis and Ved Parkash, University of Georgia, Tifton, GA

**4:15 PM Quality Analysis of Aerial Applications**

**Vinicius Velho**, Perfect Flight, Ames, IA

**4:30 PM In Season Forecasting and Management Zone Identification for Cotton Crop Using Unmanned Ariel System**

**Pankaj Pal**<sup>1</sup>, Mahendra Bhandari<sup>2</sup>, Juan Landivar<sup>1</sup> and Jose L Landivar<sup>2</sup>, (1)Agrilife Research Center Texas A&M, Corpus Christi, TX, (2)Texas A&M AgriLife Research, Corpus Christi, TX

**4:45 PM Camera and UAV Combinations Optimization of Cotton Field Contaminant Imaging**

**Cody D. Blake**, Sean P Donohoe, Femi P Alege and Joe W. Thomas, USDA ARS, Stoneville, MS

**5:00 PM Development of Spraying System for Cotton Defoliation Using Unmanned Ground Vehicle**

**Jyoti Neupane**, Clemson University, Blackville, SC

**5:15 PM Should Cotton Yield Mapping Accuracy be Improved Using on-the-Go Calibration?**

**Simerjeet Virk**<sup>1</sup>, Mathew Tucker<sup>1</sup>, Wesley M Porter<sup>1</sup> and Jeremy M. Kichler<sup>2</sup>, (1)University of Georgia, Tifton, GA, (2)University of Georgia Cooperative Extension, Moultrie, GA

# Cotton Ginning Conference

## COTTON GINNING WEDNESDAY EARLY AFTERNOON

*Preservation Hall Studios 2 - 3 - 1:30 PM-3:15 PM*

**1:30 PM 2022 U.S. Cotton Quality Update**

**Robert L Seals**, USDA-AMS, Cotton and Tobacco Program, Memphis, TN

**1:45 PM Cotton Gin Insurance Is in Turmoil; Where Do We Go from Here?**

**Kyle Smith**, Triangle Insurance Company, Enid, OK

**2:00 PM Cotton Seed Temperature Monitoring**

**Michael Prachar**, Tri-States Grain Conditioning, Spirit Lake, IA

**2:15 PM New Additions to the Cherokee Product Line**

**Michael J. Greene**, Cherokee Fabrication Company Inc., Salem, AL

**2:30 PM Kelley Electric Gin Logistics Modern Bale Tracking and Data Acquisition**

**Charles H Knabb** and Lucas N Heer, Kelley Electric, Kennett, MO

**2:45 PM Product Updates from Lummus Ag Technology - 2023**

**Ross D. Rutherford**, Lummus Ag Technology, Lubbock, TX and Pravin J. Chaubey, Lummus Ag Technology, Savannah, GA

**3:00 PM Inline Real-Time Moisture Sensing System for Gin Cotton**

**Filip To<sup>1</sup>**, Lucas Gay<sup>2</sup>, Joe W. Thomas<sup>3</sup> and Sean P Donohoe<sup>3</sup>, (1)Mississippi State University, Mississippi State, MS, (2)Mississippi State University, Mississippi State, MS, Mississippi State University, Mississippi State, MS, (3) USDA ARS, Stoneville, MS

## COTTON GINNING WEDNESDAY LATE AFTERNOON

*Preservation Hall Studios 2 - 3 - 3:45 PM-5:15 PM*

**3:45 PM Urgent Prescription- Less Gin More Tonic**

**Marinus H.J van der Sluijs**, Textile Technical Services, Geelong, VIC, Australia

**4:00 PM How Gins Can Maximize Bale Throughput Given Seasonality, Cotton Quality and Producer Decisions**

**John Gottula<sup>1</sup>**, Miguel Angel Hidalgo<sup>1</sup>, Jay King<sup>1</sup>, Harrison Ashley<sup>2</sup>, Fred M. Bourland<sup>3</sup>, Derek P. Whitelock<sup>4</sup>, Robert G. Hardin<sup>5</sup>, Jaya Tumuluru<sup>6</sup>, Gregory A. Holt<sup>7</sup>, Joe W. Thomas<sup>8</sup>, John D. Wanjura<sup>7</sup>, David Blakemore<sup>9</sup>, Chris Delhom<sup>10</sup>, Jason K. Ward<sup>11</sup> and Ed Barnes<sup>12</sup>, (1)SAS Institute, Cary, NC, (2)National Cotton Council, Cordova, TN, (3)University of Arkansas- NEREC, Keiser, AR, (4)USDA-ARS Southwestern Cotton Ginning Research Laboratory, Mesilla Park, NM, (5)Texas A&M University, College Station, TX, (6)Southwestern Cotton Ginning Research Laboratory, Mesilla Park, NM, (7) USDA-ARS Cotton Production and Processing Research Unit, Lubbock, TX, (8)USDA ARS, Stoneville, MS, (9)Blakemore Cotton & Grain, Campbell, MO, (10)USDA-ARS Southern Regional Research Center, New Orleans, LA, (11) North Carolina State University, Raleigh, NC, (12)Cotton Incorporated, Cary, NC

**4:15 PM Tama's Proactive Actions to Minimize Plastic Contamination in Cotton**

**James Cundiff**, Tama USA, Dubuque, IA



**4:30 PM Removing Plastic Contamination with Multiple Seed Cotton Cleaners**

**Derek P. Whitelock**<sup>1</sup>, Jaya Shankar Tumuluru<sup>1</sup>, Carlos B. Armijo<sup>1</sup>, Neha Kothari<sup>2</sup> and Vikki B. Martin<sup>2</sup>, (1)USDA-ARS Southwestern Cotton Ginning Research Laboratory, Mesilla Park, NM, (2)Cotton Incorporated, Cary, NC

**4:45 PM Auto-Calibration Design for a Gin-Stand Based Machine-Vision Inspection System for Plastic Contamination**

Mathew G. Pelletier, John D. Wanjura and **Gregory A. Holt**, USDA-ARS Cotton Production and Processing Research Unit, Lubbock, TX

**5:00 PM Progress Report: Cryogenically Treated Gin Saws**

**Derek P. Whitelock**<sup>1</sup>, Paul A. Funk<sup>1</sup>, Joe W. Thomas<sup>2</sup>, Carlos B. Armijo<sup>1</sup>, Gregory A. Holt<sup>3</sup> and Jaya Tumuluru<sup>4</sup>, (1)USDA-ARS Southwestern Cotton Ginning Research Laboratory, Mesilla Park, NM, (2)USDA ARS, Stoneville, MS, (3)USDA-ARS Cotton Production and Processing Research Unit, Lubbock, TX, (4)Southwestern Cotton Ginning Research Laboratory, Mesilla Park, NM

# Cotton Improvement Conference

## COTTON IMPROVEMENT

### WEDNESDAY EARLY MORNING: GRADUATE STUDENT COMPETITION

*Preservation Hall Studio 7 - 7:50 AM-10:00 AM*

**7:50 AM Opening Remarks**

**Cody W Mull**, BASF, Idalou, TX

**8:00 AM Investigating Cotton Seed Components for Crop Improvement**

**Robert A Fett** and Jenny Koebernick, Auburn University, Auburn, AL

**8:15 AM Breeding *Gossypium hirsutum*, Cotton, for *Verticillium dahliae* Kleb. Resistance with an Elite Fiber Quality Profile**

**Reagan B Heinrich**, Texas Tech University, Lubbock, TX, Jane K Dever, Texas A&M AgriLife Research and Extension Center, Lubbock, TX and Brendan Kelly, Texas A&M Agrilife Research, Lubbock, TX

**8:30 AM Evaluating 13 Experimental Lines for Yield and Vortex Yarn Performance**

**Marshall Tolleson**, Texas A&M AgriLife Research, College Station, TX, Wayne Smith, Texas A&M University, College Station, TX, Steve Hague, Texas A&M University, College Station, TX, Eric F. Hequet, Texas Tech University, Lubbock, TX and Jake Gendron, Texas A&M University, College Station, TX

**8:45 AM Identification of QTLs Associated with FOV4 Resistance in a Bi-Parental Cross in Upland Cotton**

**Stephen Parris**<sup>1</sup>, Christopher Saski<sup>1</sup>, Don C Jones<sup>2</sup>, Jim Olvey<sup>3</sup> and Mike Olvey<sup>3</sup>, (1)Clemson University, Clemson, SC, (2)Cotton Incorporated, Cary, NC, (3)O&A Enterprises, Maricopa, AZ

**9:00 AM Genetic Effect and Candidate Genes from *G. barbadense*-Sourced Qfl-Chr. 25, a QTL for Improved Fiber Length in *G. hirsutum***

**Samantha Jo Wan**<sup>1</sup>, Sameer Khanal<sup>1</sup>, Zhigang Li<sup>2</sup>, Sonika Kumar<sup>2</sup>, Nino Brown<sup>1</sup>, Pawan Kumar<sup>3</sup>, Andrew Paterson<sup>4</sup>, Neha Kothari<sup>5</sup>, Don C Jones<sup>5</sup>, Christopher Saski<sup>2</sup> and Peng Chee<sup>1</sup>, (1)University of Georgia, Tifton, GA, (2)Clemson University, Clemson, SC, (3)Bayer, St. Louis, MO, (4)College of Agricultural and Environmental Sciences, The University of Georgia, Athens, GA, (5)Cotton Incorporated, Cary, NC

**9:15 AM Evaluation of Root Architecture for Improvement of Cultivated Upland Cotton (*Gossypium hirsutum* L.)**

**Bukhtaawer Talat**, Samantha Jo Wan, Dalton M West and Peng Chee, University of Georgia, Tifton, GA

**9:30 AM Influence of Flower Openness on Yield and Fiber Quality Traits in Cotton**

**Joshua Ray Johnson**<sup>1</sup>, Steven Hague<sup>1</sup>, Wayne Smith<sup>1</sup> and Mauricio Ulloa<sup>2</sup>, (1)Texas A&M University, College Station, TX, (2)USDA-ARS, PA, CSRL, Plant Stress and Germplasm Development Research, Lubbock, TX

**9:45 AM Estimation of Cotton Plant Height Using UAS Technology**

**Oluwatola ibukun Adedeji**<sup>1</sup>, Wenxuan Guo<sup>2</sup> and Rupak Karn<sup>1</sup>, (1)Texas Tech University, Lubbock, TX, (2)Department of Plant and Soil Science, Texas Tech University, Lubbock, TX

**COTTON IMPROVEMENT  
WEDNESDAY LATE MORNING**

**Preservation Hall Studio 7 - 10:30 AM-12:00 PM**

**10:30 AM Genome-Wide Association Study for Fiber Quality Traits in the Upland Cotton (*Gossypium hirsutum* L.)**

**Vasu Kuraparthi**, North Carolina State University, Raleigh, NC

**10:45 AM Time and Quality Impacts on Fiber and Yarn Correlations**

**Wayne Smith**<sup>1</sup>, Steve Hague<sup>1</sup>, Eric F. Hequet<sup>2</sup>, Kari Hugie<sup>1</sup> and Mitchell J. Schumann<sup>3</sup>, (1)Texas A&M University, College Station, TX, (2)Texas Tech University, Lubbock, TX, (3)Texas A&M, College Station, TX

**11:00 AM Yield Component Changes over Time in the Arkansas Cotton Breeding Program**

**Freddie M. Bourland**, University of Arkansas, Keiser, AR

**11:15 AM Comparison of Fiber Quality Parameters from Laboratory Ginning Systems Used in Cotton Breeding Programs**

**Lori Hinze**<sup>1</sup>, Jodi Scheffler<sup>2</sup>, Alison L Thompson<sup>3</sup>, Steve Hague<sup>4</sup>, Joshua A. Udall<sup>1</sup> and Neha Kothari<sup>5</sup>, (1)USDA-ARS, College Station, TX, (2)USDA ARS, Stoneville, MS, (3)USDA-ARS-ALARC, Maricopa, AZ, (4)Texas A&M University, College Station, TX, (5)Cotton Incorporated, Cary, NC

**11:30 AM Single-Cell Analysis of Fiber Formation in Upland Cotton**

**Luis Herrera-Estrella**, Texas Tech University, Lubbock, TX

**COTTON IMPROVEMENT  
WEDNESDAY EARLY AFTERNOON**

**Preservation Hall Studio 7 - 1:15 PM-3:15 PM**

**1:15 PM A Rapid and Efficient Genetic Transformation System for Upland Cotton**

Christopher Saski, Clemson University, Clemson, SC and **Don C Jones**, Cotton Incorporated, Cary, NC

**1:30 PM Genetic Transformation of Upland Cotton with D1 Gene for Heat Tolerance**

**John Z. Yu**<sup>1</sup>, Aya H. Bridgeland<sup>1</sup>, Joshua A. Udall<sup>1</sup>, Kent D. Chapman<sup>2</sup>, Kater D. Hake<sup>3</sup> and Susan Y. Jaconis<sup>3</sup>, (1)USDA-ARS, College Station, TX, (2)University of North Texas, Denton, TX, (3)Cotton Incorporated, Cary, NC

**1:45 PM Update on Cotton Breeding for FOV-4 Resistance**

**Mike Olvey**<sup>1</sup>, Jim Olvey<sup>1</sup>, Don C Jones<sup>2</sup>, Christopher Saski<sup>3</sup> and Stephen Parris<sup>3</sup>, (1)O&A Enterprises, Maricopa, AZ, (2)Cotton Incorporated, Cary, NC, (3)Clemson University, Clemson, SC

**2:00 PM A Private/Public Sector Partnership to Address FOV4**

**Don C Jones<sup>1</sup>**, Jim Olvey<sup>2</sup>, Mike Olvey<sup>2</sup>, Christopher Saski<sup>3</sup> and Stephen Parris<sup>3</sup>, (1)Cotton Incorporated, Cary, NC, (2)O&A Enterprises, Maricopa, AZ, (3)Clemson University, Clemson, SC

**2:15 PM Development of DNA Markers for Resistance to Fusarium Wilt Race 4 in Cotton Based on a Reliable Greenhouse Evaluation Method**

**Yi Zhu<sup>1</sup>**, Jinfa Zhang<sup>1</sup>, Jane K Dever<sup>2</sup>, Terry Wheeler<sup>3</sup>, Kater D. Hake<sup>4</sup> and Kaitlyn Bissonnette<sup>5</sup>, (1)New Mexico State University, Las Cruces, NM, (2) Texas A&M AgriLife Research and Extension Center, Lubbock, TX, (3)Texas A&M AgriLife Research, Lubbock, TX, (4)Cotton Incorporated, Cary, NC, (5) Cotton Inc., Cary, NC

**2:30 PM Identification and Genomic Characterization of Major Effect Bacterial Blight Resistance Locus (BB-13) in Upland Cotton (*Gossypium hirsutum* L.)**

**Vasu Kuraparthi**, North Carolina State University, Raleigh, NC

**2:45 PM High Resolution Mapping and Candidate Gene Identification for B12 Conferring Resistance to Bacterial Blight Race 18 in a MAGIC Population of Upland Cotton**

**Yi Zhu<sup>1</sup>**, Hanan Elassebli<sup>1</sup>, Abdelraheem Abdelraheem<sup>1</sup>, Jinfa Zhang<sup>1</sup>, Gregory N. Thyssen<sup>2</sup>, David D. Fang<sup>3</sup>, Terry Wheeler<sup>4</sup>, Johnie N. Jenkins<sup>5</sup>, Jack C. McCarty<sup>5</sup>, Kater D. Hake<sup>6</sup> and Kaitlyn Bissonnette<sup>7</sup>, (1)New Mexico State University, Las Cruces, NM, (2)Cotton Chemistry and Utilization Research Unit, USDA-ARS-SRRC, New Orleans, LA, (3)Cotton Fiber Bioscience Research Unit, USDA-ARS-SRRC, New Orleans, LA, (4)Texas A&M AgriLife Research, Lubbock, TX, (5)USDA-ARS, Mississippi State, MS, (6)Cotton Incorporated, Cary, NC, (7)Cotton Inc., Cary, NC

**3:00 PM Evaluation of the Entire US Upland Cotton Germplasm in the GRIN Collection for Resistance to Bacterial Blight Race 18**

**Jinfa Zhang<sup>1</sup>**, Yi Zhu<sup>1</sup>, Janna Love<sup>2</sup>, James Frelichowski<sup>2</sup>, Terry Wheeler<sup>3</sup>, Kater D. Hake<sup>4</sup> and Kaitlyn Bissonnette<sup>5</sup>, (1)New Mexico State University, Las Cruces, NM, (2)USDA-ARS, College Station, TX, (3)Texas A&M AgriLife Research, Lubbock, TX, (4)Cotton Incorporated, Cary, NC, (5)Cotton Inc., Cary, NC

**COTTON IMPROVEMENT  
WEDNESDAY LATE AFTERNOON**

**Preservation Hall Studio 7 - 4:00 PM-5:00 PM**

**4:00 PM Progress in Breeding Populations Utilizing the Dominant Male Sterility (*Ms<sub>4</sub>* gene)**

**Don L Keim**, USDA-ARS, Leland, MS and Jodi Scheffler, USDA ARS, Stoneville, MS

**4:15 PM Cotton Microspore Embryo Induction**

**Kedong Da<sup>1</sup>**, Huani Leng<sup>1</sup>, Peng Chee<sup>2</sup>, Carole Saravitz<sup>3</sup>, Hsuan Chen<sup>4</sup> and Frank Louws<sup>4</sup>, (1)Plant transformation lab, NC State University, Raleigh, NC, (2)University of Georgia, Tifton, GA, (3)Phytotron, NC State University, Raleigh, NC, (4)Horticulture, NC State University, Raleigh, NC

**4:30 PM Detecting Potential High-Order Epistasis with MDR Method**

**Jixiang Wu<sup>1</sup>**, Johnie N. Jenkins<sup>2</sup> and Jack McCarty<sup>2</sup>, (1)South Dakota State University, Brookings, SD, (2)USDA-ARS, Mississippi State, MS

**4:45 PM Cotton Endophyte *Beauveria bassiana* Impacts on Seedling Development and Yield**

**Ben A Arends**, JABB of the Carolinas, Pine Level, NC

# Cotton Insect Research and Control Conference

## COTTON INSECT RESEARCH & CONTROL CONFERENCE WEDNESDAY EARLY MORNING - SESSION A

### Salons A - C - 8:00 AM-10:30 AM

**8:00 AM Effects of Simulated Injury By the Tarnished Plant Bug, *Lygus lineolaris*, on Early Season Cotton Plant Morphology and Yield across the Southeastern United States**

**Shelby Durden<sup>1</sup>**, Jeremy Greene<sup>2</sup>, Francis Reay-Jones<sup>3</sup>, Scott Graham<sup>4</sup>, Phillip Roberts<sup>5</sup>, Sally Taylor<sup>6</sup>, Silvana Paula-Moraes<sup>7</sup>, Dominic Reisig<sup>8</sup>, Anders S. Huseeth<sup>9</sup> and Alana Lynn Jacobson<sup>4</sup>, (1)64 Research Street, Blackville, SC, (2)Clemson University, Blackville, SC, (3)Clemson University, Florence, SC, (4)Auburn University, Auburn, AL, (5)University of Georgia, Tifton, GA, (6) Virginia Tech, Suffolk, VA, (7)University of Florida, Jay, FL, (8)North Carolina State University, Plymouth, NC, (9)North Carolina State University, Raleigh, NC

**8:15 AM Influence of Imidacloprid Seed Treatment on Thryvon Cotton**

**Walker Brett Farmer<sup>1</sup>**, Jeff Gore<sup>2</sup>, Angus Catchot<sup>3</sup>, Whitney Crow<sup>2</sup>, Don Cook<sup>2</sup> and Brian K. Pieralisi<sup>1</sup>, (1)Mississippi State University, Starkville, MS, (2) Mississippi State University, Stoneville, MS, (3)Mississippi State University, Mississippi State, MS

**8:30 AM Impact of Simulated Tarnished Plant Bug Damage on Late Season Cotton**

**Seth T Permenter<sup>1</sup>**, Whitney Crow<sup>1</sup>, Jeff Gore<sup>1</sup>, Angus L. Catchot<sup>2</sup> and Don Cook<sup>1</sup>, (1)Mississippi State University, Stoneville, MS, (2)Mississippi State University, Mississippi State, MS

**8:45 AM An Overview of Early Season Tarnished Plant Bug Management in Cotton**

**Michael Huoni<sup>1</sup>**, Whitney Crow<sup>1</sup>, Jeff Gore<sup>1</sup>, Don Cook<sup>1</sup> and Angus L. Catchot<sup>2</sup>, (1)Mississippi State University, Stoneville, MS, (2)Mississippi State University, Mississippi State, MS

**9:00 AM Evaluation of Three Sampling Methods for Cotton Fleahopper (*Pseudatomoscelis seriatus*)**

**Gabriella Marotta** and David Kerns, Texas A&M University, College Station, TX

**9:15 AM Efficacy of Selected Insecticides on Thryvon Cotton for Control of Tarnished Plant Bug**

**Gage Maris**, University of Arkansas Research and Extension, Lonoke, AR

**9:30 AM Evaluation of Thryvon Technology for Control of Tarnished Plant Bugs in Cotton**

**Adam Whitfield<sup>1</sup>**, Benjamin C Thrash<sup>2</sup>, Nick R. Bateman<sup>3</sup>, Matthew G Mann<sup>4</sup>, Taylor Ibbotson<sup>5</sup>, Garrett Felts<sup>6</sup>, Andrew Plummer<sup>5</sup>, Chase Floyd<sup>7</sup>, Trevor B Newkirk<sup>8</sup>, Zack Murray<sup>7</sup> and Taylor A Harris<sup>9</sup>, (1)UA-CES, Lonoke, AR, (2)University of Arkansas, Lonoke, AR, (3)University of Arkansas-RREC, Stuttgart, AR, (4)University of Arkansas, Jonesboro, AR, (5)University of Arkansas Research and Extension, Lonoke, AR, (6)University of Arkansas-RREC, Stuttgart, AR, (7)University of Arkansas, Fayetteville, AR, (8)University of Arkansas, Stuttgart, AR, (9)UADA, Lonoke, AR

**9:45 AM Effects of Water Hardness on Insecticide Performance for the Control of Tarnished Plant Bug, *Lygus lineolaris*, in Cotton**

**Taylor A Davis<sup>1</sup>**, Benjamin C Thrash<sup>2</sup>, Nick R. Bateman<sup>3</sup>, Matthew G Mann<sup>4</sup>, Andrew Plummer<sup>5</sup>, Taylor Ibbotson<sup>5</sup>, Garrett Felts<sup>6</sup>, Chase A Floyd<sup>2</sup>, Caleb Rice<sup>2</sup>, Trevor B Newkirk<sup>7</sup>, Adam Whitfield<sup>8</sup> and Zack Murray<sup>9</sup>, (1)UADA,

Lonoke, AR, (2)University of Arkansas, Lonoke, AR, (3)University of Arkansas-RREC, Stuttgart, AR, (4)University of Arkansas, Jonesboro, AR, (5)University of Arkansas Research and Extension, Lonoke, AR, (6)University of Arkansas-RREC, Stuttgart, AR, (7)University of Arkansas, Stuttgart, AR, (8)UA-CES, Lonoke, AR, (9)University of Arkansas, Fayetteville, AR

**10:00 AM Examining Pyrethroid Resistance in Arkansas Rice Stink Bug, *Oebalus pugnax*. Populations**

**Trevor B Newkirk**<sup>1</sup>, Nick R. Bateman<sup>2</sup>, Gus Lorenz<sup>3</sup>, Benjamin C Thrash<sup>3</sup>, Neelendra Joshi<sup>4</sup>, Garrett Felts<sup>5</sup>, Andrew Plummer<sup>6</sup>, Chase A Floyd<sup>3</sup>, Adam Whitfield<sup>7</sup>, Zack Murray<sup>4</sup> and Taylor A Harris<sup>8</sup>, (1)University of Arkansas, Stuttgart, AR, (2)University of Arkansas-RREC, Stuttgart, AR, (3)University of Arkansas, Lonoke, AR, (4)University of Arkansas, Fayetteville, AR, (5)University of Arkansas-RREC, Stuttgart, AR, (6)University of Arkansas CES, Lonoke, AR, (7)UA-CES, Lonoke, AR, (8)UADA, Lonoke, AR

**COTTON INSECT RESEARCH & CONTROL CONFERENCE ROUNDTABLE**

**Galerie 2 – 11:00 AM-12:00 PM**

**COTTON INSECT RESEARCH & CONTROL CONFERENCE  
WEDNESDAY EARLY AFTERNOON - SESSION A**

**Salons A - C - 1:30 PM-3:15 PM**

**1:30 PM Evaluation of Current Virginia Peanut Cultivars, and Advanced Breeding Lines, for Southern Corn Rootworm Resistance**  
**Elijah Hoar**, Maria Balota and Sally Taylor, Virginia Tech, Suffolk, VA

**1:45 PM Activity Level of NPV "Heligen" and Feeding Habits of *Helicoverpa zea* after Ingestion**

**Judge Fortenberry**<sup>1</sup>, Angus Catchot<sup>2</sup>, Don Cook<sup>3</sup>, Whitney Crow<sup>3</sup> and Jeff Gore<sup>3</sup>, (1)Student, Starkville, MS, (2)Mississippi State University, Mississippi State, MS, (3)Mississippi State University, Stoneville, MS

**2:00 PM Thrips As a Vector of Tomato Spotted Wilt Virus in Peanuts**  
**Claire A Cooke**, Auburn University, Auburn, AL

**2:15 PM Impacts of Brown Marmorated Stink Bugs on Ear Rots in Tennessee Field Corn**

**Alexandra N. Crowder**, Heather M Kelly and Sebe Brown, University of Tennessee, Jackson, TN

**2:30 PM Alternatives to Bollworm Control in the Southwest: Okra Leaf Cotton Impacts on Predation and *H. zea* Egg Hatch**

**Ivan Tellez**, Jane Pierce and Patricia Monk, New Mexico State University, Las Cruces, NM

**2:45 PM Comparison of Transgenic *Bacillus thuringiensis* Technologies in Arkansas Cotton Systems for Control of Bollworm, *Helicoverpa zea***

**Zack Murray**<sup>1</sup>, Benjamin C Thrash<sup>2</sup>, Nick R. Bateman<sup>3</sup>, Andrew Plummer<sup>4</sup>, Matthew G Mann<sup>5</sup>, Taylor Ibbotson<sup>4</sup>, Garrett Felts<sup>6</sup>, Chase Floyd<sup>1</sup>, Adam Whitfield<sup>7</sup>, Trevor B Newkirk<sup>8</sup> and Taylor A Harris<sup>9</sup>, (1)University of Arkansas, Fayetteville, AR, (2)University of Arkansas, Lonoke, AR, (3)University of Arkansas-RREC, Stuttgart, AR, (4)University of Arkansas Research and Extension, Lonoke, AR, (5)University of Arkansas, Jonesboro, AR, (6)University of Arkansas-RREC, Stuttgart, AR, (7)UA-CES, Lonoke, AR, (8)University of Arkansas, Stuttgart, AR, (9)UADA, Lonoke, AR

**3:00 PM The Interaction of Spear-Lep with Bt Proteins and HearNPV on Susceptible and Bt Resistant *Helicoverpa zea***

**Simeon L Ross**, Texas A&M AgriLife, College station, TX and David L Kerns, Texas A&M AgriLife Extension, College Station, TX

**COTTON INSECT RESEARCH & CONTROL CONFERENCE  
WEDNESDAY EARLY AFTERNOON - SESSION B**

**Galerie 2 - 1:30 PM-3:15 PM**

**1:30 PM Characterization of Bollworm Feeding in Three-Gene Cotton**

**Mary Jane Lytle**<sup>1</sup>, Jeff Gore<sup>1</sup>, Whitney Crow<sup>1</sup>, Don Cook<sup>1</sup>, Angus L. Catchot<sup>2</sup> and Jason A. Bond<sup>3</sup>, (1)Mississippi State University, Stoneville, MS, (2) Mississippi State University, Mississippi State, MS, (3)Mississippi State, Stoneville, MS

**1:45 PM Quantification of Bt Toxin Concentrations in Cotton and Efficacy Towards the Cotton Bollworm *Helicoverpa zea***

**Ryan T Gilreath**<sup>1</sup>, David L Kerns<sup>2</sup> and Fei Yang<sup>1</sup>, (1)Texas A&M University, College Station, TX, (2)Texas A&M AgriLife Extension, College Station, TX

**2:00 PM Baseline Susceptibility of Field and Laboratory Strains of *Helicoverpa zea* to HearNPV and Cross-Resistance to Bt Proteins**

**Wilfrid Calvin** and David Kerns, Texas A&M University, College Station, TX

**2:15 PM Role of Midgut Processing and Receptor Binding in *Helicoverpa zea* Vip3Aa Resistance**

**Dawson Kerns**<sup>1</sup>, Fei Yang<sup>2</sup>, David Kerns<sup>2</sup> and Juan Luis Jurat-Fuentes<sup>1</sup>, (1) University of Tennessee, Knoxville, TN, (2)Texas A&M University, College Station, TX

**2:30 PM Evaluating Fitness Costs Associated with Vip3Aa Resistance in *Helicoverpa zea***

**Haley D Kennedy**<sup>1</sup>, Fei Yang<sup>1</sup> and David L Kerns<sup>2</sup>, (1)Texas A&M University, College Station, TX, (2)Texas A&M AgriLife Extension, College Station, TX

**2:45 PM Marker-Assisted Fall Armyworm Breeding: Leveraging Novel, Real-Time Genotyping Techniques to Better Characterize C-Strain, R-Strain, and Hybridized *Spodoptera frugiperda***

**Andie Miller**, Gregory A. Sword and Ashley Tessnow, Texas A&M University, College Station, TX

**3:00 PM Evaluation of Thryvion Cotton in Nematode Infested Fields in Alabama**

**Thomas J Douglas**, Auburn University, Auburn University, AL

**COTTON INSECT RESEARCH & CONTROL CONFERENCE  
WEDNESDAY LATE AFTERNOON - SESSION A**

**Salons A-C - 4:00 PM-5:15 PM**

**4:00 PM Soybean Management for Lepidopteran Pest Using Insect Growth Regulators**

**Sawyer Clayton Hopkins**<sup>1</sup>, Whitney Crow<sup>1</sup>, Don Cook<sup>1</sup>, Jeff Gore<sup>1</sup> and Angus Catchot<sup>2</sup>, (1)Mississippi State University, Stoneville, MS, (2)Mississippi State University, Mississippi State, MS

**4:15 PM Insecticide Evaluation on Soybean Looper in Mississippi Soybean**

**Reese Butler**<sup>1</sup>, Don Cook<sup>2</sup> and Whitney Crow<sup>2</sup>, (1)Mississippi State University, Mississippi State, MS, (2)Mississippi State University, Stoneville, MS

**4:30 PM Forecasting Suitable Habitat for Redbanded Stink Bug Under Current and Future Climates.**

**Thomas G Paul**<sup>1</sup>, Angus L. Catchot<sup>1</sup>, Tyler B Towles<sup>2</sup> and Samuel F Ward<sup>1</sup>, (1)Mississippi State University, Mississippi State, MS, (2)LSU AgCenter, Winnsboro, LA

**4:45 PM Insecticide Application Efficacy of sUAS As Compared to Traditional Delivery Systems**

**Hunter J Blalock**<sup>1</sup>, Whitney Crow<sup>2</sup>, Angus Catchot<sup>3</sup>, Darrin M. Dodds<sup>3</sup> and Bryan Whittenton<sup>4</sup>, (1)Mississippi State University, Madison, MS, (2) Mississippi State University, Stoneville, MS, (3)Mississippi State University, Mississippi State, MS, (4)Mississippi State, MS State, MS

**5:00 PM Determining the Effects of Excluding Insecticide Classes on Thryvon Cotton Varieties for Tarnished Plant Bug Control**

**Hunter Lipsey** and Tyler B Towles, LSU AgCenter, Winnsboro, LA

**COTTON INSECT RESEARCH & CONTROL CONFERENCE  
WEDNESDAY LATE AFTERNOON - SESSION B**

**Galerie 2 - 4:00 PM-5:15 PM**

**4:00 PM Caged Feeding Assays of Cotton Fleahoppers**

***Pseudatomocelis seriatus* (Reuter) on Thryvon Cotton**

**Brady P. Arthur**, Texas A&M University, College Station, TX and David L Kerns, Texas A&M AgriLife Extension, College Station, TX

**4:15 PM Reproductive Success and Survivability of the Tarnished Plant Bug (*Lygus lineolaris*) on Mid-Atlantic Cold Season Cover Crops**

**John Philip Schepis**, Virginia Tech University, Rockville, MD and Sally Taylor, Virginia Tech, Suffolk, VA

**4:30 PM Characterizing Variation in the Spatiotemporal Abundance and Distribution of Cotton Infesting Aphids**

**John W. Mahas**<sup>1</sup>, Jessica B Mahas<sup>1</sup>, Alana Lynn Jacobson<sup>1</sup>, Charles Ray<sup>2</sup>, Phillip Roberts<sup>3</sup>, Michael Toews<sup>3</sup>, Jeremy Greene<sup>4</sup>, George G. Kennedy<sup>5</sup>, Sally Taylor<sup>6</sup>, Silvana Paula-Moraes<sup>7</sup>, Jeff Gore<sup>8</sup>, Whitney Crow<sup>8</sup>, Scott D. Stewart<sup>9</sup>, David L Kerns<sup>10</sup> and Suhas Vyavhare<sup>11</sup>, (1)Auburn University, Auburn, AL, (2) Mississippi State, Mississippi State, MS, (3)University of Georgia, Tifton, GA, (4)Clemson University, Blackville, SC, (5)North Carolina State University, Raleigh, NC, (6)Virginia Tech, Suffolk, VA, (7)University of Florida, Jay, FL, (8)Mississippi State University, Stoneville, MS, (9)University of Tennessee, Jackson, TN, (10)Texas A&M AgriLife Extension, College Station, TX, (11)Texas A&M AgriLife Research Center, Lubbock, TX

**4:45 PM Effect of Moisture Treatment on Cotton Fleahopper Nymph Emergence from Woolly Croton**

**Manjari Mukherjee** and Thomas M. Chappell, Texas A&M University, College Station, TX

**5:00 PM Virus-Induced Gene Silencing (VIGS) Is a Promising Tool for Studying Cotton-Herbivore Interactions**

**Mason Clark**<sup>1</sup>, Spencer Behmer<sup>1</sup>, Anjel M Helms<sup>1</sup>, Ryan W Kurtz<sup>2</sup>, Keyan Zhu-Sazlman<sup>1</sup> and Gregory A. Sword<sup>1</sup>, (1)Texas A&M University, College Station, TX, (2)Cotton Incorporated, Cary, NC

**COTTON INSECT RESEARCH & CONTROL  
BUSINESS MEETING AND MIXER**

**Galerie 2 – 5:15 PM-7:00 PM**

# Cotton Quality Measurements Conference

**COTTON QUALITY MEASUREMENTS  
WEDNESDAY EARLY AFTERNOON**

*Galerie 4 - 1:00 PM-3:15 PM*

**1:00 PM Long-Term Stability of HVI Tensile Properties across Multiple HVIs**

**Eric F. Hequet**, Christopher N Turner and Md Abu Sayeed, Texas Tech University, Lubbock, TX

**1:15 PM Utilization of Elongation Measurement in Fiber Selection**

**Christopher D. Delhom**, USDA-ARS Southern Regional Research Center, New Orleans, LA and Eric F. Hequet, Texas Tech University, Lubbock, TX

**1:30 PM Determining the Optimum Number of Replications for New HVI Fiber Length Measurements**

**Md Abu Sayeed**, Christopher N Turner and Eric F. Hequet, Texas Tech University, Lubbock, TX

**1:45 PM Relationships Among Short Fiber Measurements from AFIS and New Fiber Length Measurements from HVI**

**Christopher N Turner**, Md Abu Sayeed and Eric F. Hequet, Texas Tech University, Lubbock, TX

**2:00 PM Investigating Fiber Quality from Tabletop and Commercial Scale Saw and Roller Gin Stands**

**Carlos B. Armijo**<sup>1</sup>, Jaya Shankar Tumuluru<sup>1</sup>, Christopher D. Delhom<sup>2</sup>, Derek P. Whitelock<sup>1</sup>, Paul A. Funk<sup>1</sup>, John D. Wanjura<sup>3</sup>, Neha Kothari<sup>4</sup> and Vikki B. Martin<sup>4</sup>, (1)USDA-ARS Southwestern Cotton Ginning Research Laboratory, Mesilla Park, NM, (2)USDA-ARS Southern Regional Research Center, New Orleans, LA, (3)USDA-ARS Cotton Production and Processing Research Unit, Lubbock, TX, (4)Cotton Incorporated, Cary, NC

**2:15 PM A JMP-Pro Software Add-in for AFIS Fiber Length Distribution Analysis**

**Mourad Krifa**, Kent State University, Kent, OH and Neha Kothari, Cotton Incorporated, Cary, NC

**2:30 PM Comparative Analyses of a Maturity Distributional Parameter Evaluating Immature Fiber Contents By Reference and Indirect Methods**

**Hee Jin Kim**, USDA-ARS, Southern Regional Research Center, New Orleans, LA, Christopher D. Delhom, USDA-ARS Southern Regional Research Center, New Orleans, LA, Don C Jones, Cotton Incorporated, Cary, NC and Bugao Xu, University of North Texas, Denton, TX

**2:45 PM Exploration of a New Imaging Modality for Assessing Cotton Fiber Quality**

Reagan B Heinrich<sup>1</sup>, Brooke E Shumate<sup>2</sup>, **Brendan Kelly**<sup>3</sup>, Alexandre Soares-Da-Silva<sup>1</sup>, Yildirim Kocoglu<sup>1</sup>, Hamed Sari-Sarraf<sup>1</sup>, Md Alamgir Kabir<sup>4</sup>, Namuna Adhikari<sup>4</sup> and Aniruddha Ray<sup>4</sup>, (1)Texas Tech University, Lubbock, TX, (2) Texas A&M AgriLife, Lubbock, TX, (3)Texas A&M Agrilife Research, Lubbock, TX, (4)University of Toledo, Toledo, OH

**3:00 PM Predicting Cotton Fiber Properties with Fiber Length Parameters Measured By Dual-Beard Fibrogram**

**Bugao Xu** and Jinfeng Xu, University of North Texas, Denton, TX



**Wednesday, January 11, 2023**

**COTTON QUALITY MEASUREMENTS  
WEDNESDAY LATE AFTERNOON**

***Galerie 4 - 4:00 PM-5:00 PM***

**4:00 PM Low-Cost Real-Time Leaf Grade Determination**

**Christopher D. Delhom**, USDA-ARS Southern Regional Research Center, New Orleans, LA, Michael Ceraso, Oak Ridge Institute for Science and Education, New Orleans, LA and Neha Kothari, Cotton Incorporated, Cary, NC

**4:15 PM The Assessment of within-Boll Characteristics in the Improvement of Fiber Related Traits**

**Jake Gendron**<sup>1</sup>, Wayne Smith<sup>2</sup>, Eric F. Hequet<sup>3</sup> and Steven Hague<sup>2</sup>, (1) Texas A&M University, College Station, TX, (2) Texas A&M University, College Station, TX, (3) Texas Tech University, Lubbock, TX

**4:30 PM Application of Fourier Transform Infrared Spectroscopy for Classifying Cotton Fiber Maturity of a Cotton Genetic Population Composed of Homozygous and Heterozygous Genotypes**

**Yongliang Liu**, USDA-ARS, SRRC, New Orleans, LA and Hee Jin Kim, USDA-ARS, Southern Regional Research Center, New Orleans, LA

# **Cotton Utilization Conference**

**COTTON UTILIZATION  
WEDNESDAY LATE MORNING**

***Balcony L - 10:30 AM-12:00 PM***

**10:30 AM Bioactivity of Cottonseed-Derived Materials for Nutrition and Health**

**Heping Cao** and Kandan Sethumadhavan, USDA-ARS, New Orleans, LA

**10:45 AM Characterization of Protein Solubility from Glandless Cottonseed**

**Heping Cao**, Kandan Sethumadhavan and Scott Pelitire, USDA-ARS, New Orleans, LA

**11:00 AM Roasting Impact on the Chemical Composition of Glandless Cottonseed**

**Zhongqi He**, Sunghyun Nam, K. Thomas Klasson and Huai N Cheng, USDA-ARS SRRC, New Orleans, LA

**11:15 AM Washable Antimicrobial Wipes Made from Nanostructured Raw Cotton Fibers**

**Sunghyun Nam**<sup>1</sup>, Doug J Hinchliffe<sup>1</sup>, Gary Lawson<sup>2</sup>, Matthew B Hillyer<sup>1</sup> and Zhongqi He<sup>1</sup>, (1) USDA-ARS SRRC, New Orleans, LA, (2) Wildwood Cotton Technologies, Greenwood, MS

**11:30 AM Quantification of Natural and Synthetic Textile Microfibers Using an Automated Imaging System**

**Michael Santiago Cintron**, USDA, New Orleans, LA and Christopher D. Delhom, USDA-ARS Southern Regional Research Center, New Orleans, LA

**11:45 AM Management of 2-Thread & 3-Thread Fleece Knitted Fabrics Performance Produced from Cotton and Different Regenerated Fibers**

**Alaa A Badr**, Aida Sheta and Ashraf El-Nahrawy, Alexandria University, Alexandria, Egypt

# Cotton Weed Science Research Conference

## COTTON WEED SCIENCE RESEARCH WEDNESDAY EARLY MORNING

*Preservation Hall Studio 9 - 8:00 AM-10:00 AM*

### **8:00 AM Evaluation of Italian Ryegrass Control Following Different Application Timings of Fall Residual Herbicides**

**Lou Adams<sup>1</sup>**, Tom Barber<sup>2</sup>, Jason K Norsworthy<sup>1</sup>, Thomas R Butts<sup>3</sup> and Aaron Ross<sup>2</sup>, (1)University of Arkansas, Fayetteville, AR, (2)University of Arkansas-Extension, Lonoke, AR, (3)University of Arkansas, Lonoke, AR

### **8:15 AM Cotton Tolerance to over-the-Top Application of Various Herbicides Coated on Fertilizer**

**Summer L Pritchett<sup>1</sup>**, Jason K Norsworthy<sup>2</sup>, Maria Carolina Souza<sup>2</sup>, Casey H Arnold<sup>2</sup> and Lon Tom Barber<sup>3</sup>, (1)University of Arkansas Crop, Soil, and Environmental Science Weed Science Program, Fayetteville, AR, (2) University of Arkansas, Fayetteville, AR, (3)Director Newport Extension Center, (CES)-Cooperative Extension Service, Lonoke, AR

### **8:30 AM Cotton Residual Herbicide Activity on Glufosinate-Resistant Palmer Amaranth**

**Pamela Carvalho-Moore<sup>1</sup>**, Jason K Norsworthy<sup>1</sup>, Maria Carolina Souza<sup>1</sup>, David Smith<sup>1</sup>, Samuel Noe<sup>1</sup> and Lon Tom Barber<sup>2</sup>, (1)University of Arkansas, Fayetteville, AR, (2)Director Newport Extension Center, (CES)-Cooperative Extension Service, Lonoke, AR

### **8:45 AM Sensitivity of 2021 Arkansas Palmer Amaranth Accessions to Dicamba, 2,4-D, and Glufosinate**

**Maria Carolina Souza<sup>1</sup>**, Jason K Norsworthy<sup>1</sup>, Pamela Carvalho-Moore<sup>1</sup>, Leonard B Piveta<sup>1</sup>, Lon Tom Barber<sup>2</sup> and Thomas R Butts<sup>3</sup>, (1)University of Arkansas, Fayetteville, AR, (2)Director Newport Extension Center, (CES)-Cooperative Extension Service, Lonoke, AR, (3)University of Arkansas, Lonoke, AR

### **9:00 AM Evaluating Cover Crops and Herbicides for Weed Control in Cotton**

**Annu Kumari<sup>1</sup>**, Andrew J. Price<sup>2</sup>, Steve Li<sup>1</sup> and Audrey V. Gamble<sup>1</sup>, (1)Auburn University, Auburn, AL, (2)USDA, Auburn, AL

### **9:15 AM Cotton Tolerance to Low Concentrations of a Postemergence-Applied Diflufenican Mixture**

**Matthew C Woolard<sup>1</sup>**, Jason K Norsworthy<sup>1</sup>, Pamela Carvalho-Moore<sup>1</sup>, Maria Carolina Souza<sup>1</sup> and Lon Tom Barber<sup>2</sup>, (1)University of Arkansas, Fayetteville, AR, (2)Director Newport Extension Center, (CES)-Cooperative Extension Service, Lonoke, AR

### **9:30 AM Interaction of See & Spray™ Model Sensitivity and Application Timing in Cotton**

**Tristen A Avent<sup>1</sup>**, Jason K Norsworthy<sup>2</sup>, Matthew C Woolard<sup>2</sup>, William Patzoldt<sup>3</sup>, Lauren M Schwartz-Lazaro<sup>3</sup>, Michael M Houston<sup>4</sup>, Wesley Everman<sup>5</sup> and Diego J Contreras<sup>5</sup>, (1)University of Arkansas Crop, Soil, and Environmental Science Weed Science Program, Fayetteville, AR, (2) University of Arkansas, Fayetteville, AR, (3)Blue River Technology, Sunnyvale, CA, (4)Blue River Technology, Greenville, MS, (5)North Carolina State University, Raleigh, NC

### **9:45 AM Utilization of See & Spray™ Ultimate Technology with Cover Crops in Cotton**

**Ty C Smith<sup>1</sup>**, Jason K Norsworthy<sup>1</sup>, Tristen A Avent<sup>2</sup>, William Patzoldt<sup>3</sup>, Lauren M Schwartz-Lazaro<sup>3</sup> and Michael M Houston<sup>4</sup>, (1)University of Arkansas,

Fayetteville, AR, (2)University of Arkansas Crop, Soil, and Environmental Science Weed Science Program, Fayetteville, AR, (3)Blue River Technology, Sunnyvale, CA, (4)Blue River Technology, Greenville, MS

**COTTON WEED SCIENCE RESEARCH  
WEDNESDAY LATE MORNING**

**Preservation Hall Studio 9 - 10:30 AM-12:00 PM**

**10:30 AM Palmer Amaranth (*Amaranthus palmeri*) Management in Cotton Using an Integrated Approach: A Multi-State Study**

**Sarah E. Kezar**<sup>1</sup>, Kyle R. Russell<sup>2</sup>, Fernando Oreja<sup>3</sup>, Sandy Ethridge<sup>3</sup>, April Dobbs<sup>3</sup>, Delaney C. Foster<sup>4</sup>, Daniel Hathcoat<sup>1</sup>, Michael M. Houston<sup>5</sup>, David Smith<sup>5</sup>, Peter A. Dotray<sup>2</sup>, Jason K Norsworthy<sup>5</sup>, Ramon Leon Gonzalez<sup>3</sup>, Gaylon Morgan<sup>6</sup> and Muthukumar V Bagavathiannan<sup>1</sup>, (1)Texas A&M University, College Station, TX, (2)Texas Tech University, Lubbock, TX, (3) North Carolina State University, Raleigh, NC, (4)Texas Tech University, Texas A&M AgriLife Research and Extension Service, Lubbock, TX, (5)University of Arkansas, Fayetteville, AR, (6)Cotton Incorporated, Cary, NC

**10:45 AM Cotton Response to Envoke in Enlist and Xtendflex Systems**

**Noah H Reed**, University of Arkansas Fayetteville, Fayetteville, AR, Lon Tom Barber, Director Newport Extension Center, (CES)-Cooperative Extension Service, Lonoke, AR, Jason K Norsworthy, University of Arkansas, Fayetteville, AR and Thomas R Butts, University of Arkansas, Lonoke, AR

**11:00 AM A Beltwide Perspective of the Axant™ Flex Cotton System**

**Jennifer Dudak**<sup>1</sup>, Zachary R. Treadway<sup>1</sup>, Todd A Baughman<sup>1</sup>, Gregory B. Baldwin<sup>2</sup>, Tom Barber<sup>3</sup>, Charlie Cahoon<sup>4</sup>, A. Stanley Culpepper<sup>5</sup>, Adam C. Hixson<sup>6</sup>, Steve Li<sup>7</sup> and Scott Nolte<sup>8</sup>, (1)Oklahoma State University, Ardmore, OK, (2)BASF, Durham, NC, (3)University of Arkansas-Extension, Lonoke, AR, (4)North Carolina State University, Raleigh, NC, (5)University of Georgia, Tifton, GA, (6)BASF, Lubbock, TX, (7)Auburn University, Auburn, AL, (8)Texas A&M University, College Station, TX

**11:15 AM Evaluation of Topramezone for Use in Axant™ Flex Cotton Production**

**Megan Mills**<sup>1</sup>, Peter A. Dotray<sup>2</sup>, Gregory B. Baldwin<sup>3</sup>, Scott Asher<sup>4</sup>, Adam C. Hixson<sup>4</sup>, Maxwell E. Smith<sup>1</sup>, Blaine A. Patton<sup>1</sup>, Kyle R. Russell<sup>1</sup>, Bobby Rodriguez<sup>5</sup> and Kyle R. Russell<sup>1</sup>, (1)Texas Tech University, Lubbock, TX, (2) Texas Tech University, Lubbock, TX, Texas A&M AgriLife Research and Extension Service, Lubbock, TX, (3)BASF, Research Triangle Park, NC, (4) BASF, Lubbock, TX, (5)Texas A&M AgriLife Research and Extension Service, Lubbock, TX

**11:30 AM Evaluating Novel Application Methods to Mitigate Auxin + Graminicide Herbicide Antagonism**

**Jake A Patterson**, Darrin M. Dodds, Antonio AC Tavares, Gresham Stephens, Caleb Meyer and Sydney Baker, Mississippi State University, Mississippi State, MS

**11:45 AM Evaluation of Impregnated Residual Herbicides in Cotton**

**Brock A Dean**, Charlie Cahoon, Zack Taylor, Jose S de Sanctis, Jacob C Forehand and Hunter Lee, North Carolina State University, Raleigh, NC

**COTTON WEED SCIENCE RESEARCH  
WEDNESDAY EARLY AFTERNOON**

**Preservation Hall Studio 9 - 1:00 PM-2:45 PM**

**1:00 PM Does 2,4-D Influence Nutrient Partitioning in Cotton?**

**Kyle Russell**, Texas Tech University, Lubbock, TX, Peter A. Dotray, Texas A&M AgriLife Research and Extension Service, Lubbock, TX, Texas Tech University,

Lubbock, TX, Irish Lorraine B Pabuayon, LSU, Rayne, LA and Glen Ritchie, Department of Plant & Soil Science, Texas Tech University, Lubbock, TX

**1:15 PM How Does Cotton Seed Quality Influence Tolerance to PRE Herbicides?**

**Jacob C Forehand**, North Carolina State University, Raleigh, NC

**1:30 PM Evaluation of Residual Palmer Amaranth Control with Soil-Applied Herbicides**

**Mason Castner**<sup>1</sup>, Jason K Norsworthy<sup>1</sup>, Samuel Noe<sup>1</sup> and Tom Barber<sup>2</sup>, (1) University of Arkansas, Fayetteville, AR, (2) University of Arkansas-Extension, Lonoke, AR

**1:45 PM Preemergence Control of Palmer Amaranth with Tank-Mix Partners That Include Dicamba**

**Blaine A. Patton**, Texas Tech University, Lubbock, TX, C.D. Ray White, Texas A&M AgriLife Research, Lubbock, TX and Peter A. Dotray, Texas A&M AgriLife Research and Extension Service, Lubbock, TX

**2:00 PM Performance of the Axant™ Flex Cotton System**

**Zachary R. Treadway**<sup>1</sup>, Jennifer Dudak<sup>1</sup>, Todd A Baughman<sup>1</sup>, Adam C. Hixson<sup>2</sup> and Gregory B. Baldwin<sup>3</sup>, (1) Oklahoma State University, Ardmore, OK, (2) BASF, Lubbock, TX, (3) BASF, Research Triangle Park, NC

**2:15 PM Axant Flex Cotton Response and Palmer Amaranth Control Using Systems That Include Alite 27**

**Maxwell Edward Smith**, Texas Tech University, Lubbock, TX, Peter A. Dotray, Texas A&M AgriLife Research and Extension Service, Lubbock, TX and Adam C. Hixson, BASF, Lubbock, TX

**2:30 PM Alternative Methods of Managing Off-Target Movement of Dicamba in Texas Cotton Production Systems**

**Hayden Taylor**<sup>1</sup>, Scott Nolte<sup>1</sup>, Peter A. Dotray<sup>2</sup> and Josh McGinty<sup>3</sup>, (1) Texas A&M University, College Station, TX, (2) Texas A&M AgriLife Research and Extension Service, Lubbock, TX, (3) Texas A&M AgriLife Extension Service, Corpus Christi, TX

**COTTON WEED SCIENCE RESEARCH  
WEDNESDAY LATE AFTERNOON**

*Preservation Hall Studio 9 - 3:15 PM-4:30 PM*

**3:15 PM Optimization of See and Spray™ Technology in Xtendflex Cotton**

**Michael M Houston**<sup>1</sup>, William Patzoldt<sup>2</sup>, Lauren M Schwartz-Lazaro<sup>2</sup>, Jesaen Moraes<sup>2</sup> and Scott Brown<sup>2</sup>, (1) Blue River Technology, Greenville, MS, (2) Blue River Technology, Sunnyvale, CA

**3:30 PM Cotton Response to Selected Drift Rates of Imazapyr**

**Michael W. Marshall**, Clemson University - Edisto REC, Blackville, SC, Mitchell B Williams, Clemson University, Blackville, SC and Michael A. Jones, Clemson University, Florence, SC

**3:45 PM Kochia: An Increasing Weed Problem in Texas High Plains Cotton**

**C.D. Ray White**, Texas A&M AgriLife Research, Lubbock, TX and J. Wayne Keeling, Texas A&M AgriLife Research Center, Lubbock, TX

**4:00 PM Spectral Sensing Technology for Weed Detection in Herbicide Spot Spraying Systems**

**Pedro Andrade-Sanchez**, University of Arizona, Maricopa, AZ

**4:15 PM Understanding the Dynamics of Crop Protection through Kynetec Panel Data**

**Leah Buchman**, Heather McCarty, Jim Kohler, Abby Hebenstreit, Greg Malcom and Maria McWhorter, Kynetec, St Louis, MO

# Cotton Sustainability Conference

## COTTON SUSTAINABILITY WEDNESDAY EARLY MORNING

*Mardi Gras Ballroom Salon D - 8:15 AM-10:00 AM*

**8:15 AM U.S. Cotton Trust Protocol: Year Three Updates**

**Gary Adams**, National Cotton Council, Cordova, TN

**8:45 AM U.S. Climate Smart Cotton: What's Next?**

**Steven Pires**, Cotton Inc, Cary, NC

**9:15 AM Panel Discussion - U.S. Climate Smart Cotton Partners: Goals, Projects, Process**

**Steven Pires**, Cotton Incorporated, Cary, NC, Kirk Smithwick, Target, Minneapolis, MN, Dianna Bagnall, Soil Health Institute, Columbia, IL and Dedrick Davis, Alabama A&M University, Normal, AL

## COTTON SUSTAINABILITY WEDNESDAY LATE MORNING

*Mardi Gras Ballroom Salon D - 10:30 AM-12:00 PM*

**10:30 AM Panel Discussion - Exploring the Buzz about Regenerative Ag**

**Andrew Jordan**, Jordan Associates Ag and Bio Engineering Services, Cordova, TN, Dianna Bagnall, Soil Health Institute, Columbia, IL, Beth Jensen, Textile Exchange, Boulder, CO, Amy Winstead, GreenPoint Ag, Decatur, AL and Deepika Mishra, US Cotton Trust Protocol, Cordova, TN

**11:15 AM Panel Discussion - Cotton in a Circular Bioeconomy**

**Steven Pires**, Cotton Incorporated, Cary, NC, Annette Bitto, TAMA USA, Dubuque, IA, Jean Bonhotal, Cornell University, Ithaca, NY and Steve Richardson, Unless Collective, Portland, OR

## COTTON SUSTAINABILITY WEDNESDAY EARLY AFTERNOON

*Mardi Gras Ballroom Salon D - 1:00 PM-3:15 PM*

**1:00 PM Creating Opportunities for Cotton Producers to Participate in Ecosystem Service Market Programs**

**Amanda Raster**, Ecosystem Services Market Consortium, Falls Church, VA

**1:30 PM Forced Labor Prevention Act Effect on U.S. Cotton Industry**

**Vikki B. Martin**, Cotton Incorporated, Cary, NC and Kirk Smithwick, Target, Minneapolis, MN

**2:00 PM The Benefits of Regenerative Ag on Boll Retention, Insect Resistance, Fiber Quality and Market Opportunities in Cotton**

**James Johnson**, W.R. Johnson and Sons LLC, Columbus, NM

**2:15 PM Soil Health Changes in Continuous Cotton after 40 Years of No-till and Cover Cropping in West Tennessee**

**Forbes R Walker**<sup>1</sup>, Nutifafa Adotey<sup>2</sup>, Jennifer DeBruyn<sup>3</sup>, Lori Duncan<sup>3</sup>, Jaehoon Lee<sup>3</sup>, Amin Nouri<sup>4</sup>, Mark Radosevich<sup>3</sup>, Debasish Saha<sup>3</sup> and Sean Schaeffer<sup>3</sup>, (1)University of Tennessee Extension, Knoxville, TN, (2)University of Tennessee, Jackson, TN, (3)University of Tennessee, Knoxville, TN, (4) Oregon State University, Hermiston, OR

**2:30 PM Leveraging Precision Agriculture for Cotton Sustainability, Profitability, and Wildlife Benefits**

**Brent A. Rudolph**, Pheasants Forever and Quail Forever, Mason, MI, Mark D McConnell, Mississippi State University, Mississippi State, MS and Chaz Holt, Quail Forever, St. Paul, MN

**2:45 PM Using the Fieldprint Platform Sensitivity Analysis to Evaluate Georgia Cotton Production Scenarios**

**Kaylyn Reagin**<sup>1</sup>, Wesley M Porter<sup>1</sup> and Eric Coronel<sup>2</sup>, (1)University of Georgia, Tifton, GA, (2)American Peanut Council, Alexandria, VA

**COTTON SUSTAINABILITY  
WEDNESDAY LATE AFTERNOON**

***Mardi Gras Ballroom Salon D - 4:00 PM-5:00 PM***

**4:00 PM Conservation Practices for Reducing Greenhouse Gas Emissions in Cotton Production**

**Arlene A Adviento-Borbe**<sup>1</sup>, Sandhya Karki<sup>2</sup>, Richard C. Woodruff<sup>3</sup>, N. Ray Benson<sup>3</sup>, Tina Gray Teague<sup>4</sup> and Michele L. Reba<sup>1</sup>, (1)USDA-ARS Delta Water Management Research Unit, Jonesboro, AR, (2)University of Arkansas, Jonesboro, AR, (3)University of Arkansas System Division of Agriculture, State University, AR, (4)Ark State Univ / Univ Ark Sys Div of Ag, State University, AR

**4:15 PM Co-Pelletization of Cotton Gin Byproducts and Cattle Manure for Soil Amendment**

**Femi Peter Alege**, Cody D. Blake, Sean P Donohoe and Joe W. Thomas, USDA ARS, Stoneville, MS

**4:30 PM Using Natural Biomarker to Authenticate the Textile Cotton Materials**

**Mohamed Abdelrahman Negm**, Cotton Research Institute, Giza, Egypt

**4:45 PM Sustainability Conference - Student Award Presentation**

**Lori Duncan**, University of Tennessee, Knoxville, TN

# Cotton Agronomy, Physiology & Soil Conference

## COTTON AGRONOMY, PHYSIOLOGY & SOILS CONFERENCE THURSDAY EARLY MORNING

*Galerie 5 - 8:00 AM-10:00 AM*

### **8:00 AM Soil Organic Carbon Stocks in Texas Cropping Systems**

**Joseph Alan Burke**<sup>1</sup>, Katie L. Lewis<sup>2</sup>, Paul DeLaune<sup>3</sup>, Jamie Foster<sup>4</sup>, Jourdan M. Bell<sup>5</sup> and Christopher Cobos<sup>1</sup>, (1)Texas A&M AgriLife Research, Lubbock, TX, (2)Texas A&M AgriLife Research and Extension Center, Lubbock, TX, (3) Texas A&M AgriLife Research, Vernon, TX, (4)Texas A&M AgriLife Research, Corpus Christi, TX, (5)Texas A&M AgriLife, Amarillo, TX

### **8:15 AM Updating Nitrogen Recommendations for Cotton**

**Hardeep Singh**, University of Florida, Jay, FL, Libbie Johnson, University of Florida Santa Rosa County, Jay, FL, Ethan Carter, University of Florida Jackson County, Marianna, FL, Joseph Iboyi, UFL, Jay, FL and Lakesh Sharma, UFL, Gainesville, FL

### **8:30 AM Refining Cotton Nitrogen Fertilizer Recommendations**

Bhupinder S. Farmaha<sup>1</sup>, Alan J Franzluebbers<sup>2</sup>, **Shikha Dubey**<sup>1</sup>, Gaylon Morgan<sup>3</sup>, Brian Arnall<sup>4</sup>, Hunter Frame<sup>5</sup>, Bradley R Wilson<sup>6</sup>, Brian K. Pieralisi<sup>7</sup>, John L. Snider<sup>8</sup>, Katie L. Lewis<sup>9</sup>, Benjamin M. McKnight<sup>10</sup>, Julie A. Howe<sup>11</sup>, Murilo Maeda<sup>12</sup>, Henry Yabbey Sintim<sup>8</sup>, Trenton L Roberts<sup>13</sup>, Dorivar Diaz<sup>14</sup> and Kipling S. Balkcom<sup>15</sup>, (1)Clemson University, Blackville, SC, (2)USDA-ARS, Raleigh, NC, (3)Cotton Incorporated, Cary, NC, (4)Oklahoma State University, Stillwater, OK, (5)Virginia Polytechnic Institute & State University, Blacksburg, VA, (6)University of Missouri, Portageville, MO, (7)Mississippi State University, Starkville, MS, (8)University of Georgia, Tifton, GA, (9) Texas A&M AgriLife Research Center, Lubbock, TX, (10)Texas A&M AgriLife Extension Service, College Station, TX, (11)Texas AgriLife Research, College Station, TX, (12)Texas A&M AgriLife Extension, Lubbock, TX, (13)University of Arkansas, Fayetteville, AR, (14)Kansas State University, Manhattan, KS, (15) USDA-ARS, Auburn, AL

### **8:45 AM Planting Date, Seeding Rate and Variety Effects on Lint Yield and Plant Architecture**

**Hunter Frame**, Virginia Polytechnic Institute & State University, Blacksburg, VA

### **9:00 AM The Impact of Visual Mechanical Damage on Seedling and Plant Morphology**

**Lori Unruh-Snyder**<sup>1</sup>, Marisa Crisp<sup>2</sup>, Reagan Dunn<sup>2</sup> and Becca Karriker<sup>2</sup>, (1) NC State, Zebulon, NC, (2)NC State, Raleigh, NC

### **9:15 AM Utilizing Remote Sensing Systems to Assess Cotton Fiber Quality Parameters**

**Mahendra Bhandari**<sup>1</sup>, Pankaj Pal<sup>2</sup>, Jose L Landivar<sup>1</sup>, Murilo Maeda<sup>3</sup> and Juan Landivar<sup>1</sup>, (1)Texas A&M AgriLife Research, Corpus Christi, TX, (2) Agrilife Research Center Texas A&M, Corpus Christi, TX, (3)Texas A&M AgriLife Extension, Lubbock, TX

### **9:30 AM Potassium Management Utilizing Split-Applications**

**Justin Calhoun**, University of Missouri, Portageville, MO

## COTTON AGRONOMY, PHYSIOLOGY & SOILS CONFERENCE AWARDS

*Galerie 5 – 10:00 AM-10:30 AM*

# Cotton Disease Council

## COTTON DISEASE COUNCIL THURSDAY EARLY MORNING

*Preservation Hall Studio 8 - 8:00 AM-10:00 AM*

### **8:00 AM Response of Commercial Cultivars to Verticillium Wilt and Bacterial Blight in the Southern High Plains of Texas**

**Terry A. Wheeler**, Texas A&M AgriLife Research, Lubbock, TX and Jane K Dever, Texas A&M AgriLife Research and Extension Center, Lubbock, TX

### **8:10 AM Drone Usage in Regard to RGB and NIR Bandwidth in Verticillium Wilt Ratings**

**Robert A Ballesteros**, Texas A&M AgriLife Research, Lubbock, TX

### **8:20 AM Interaction between Pathogenic and Saprophytic Growth of *Fusarium Oxysporum* f. sp. *vasinfectum***

Roy Davis, Jensen T. Hayter, Thomas Isakeit, Margaret L. Marlino and **Thomas M. Chappell**, Texas A&M University, College Station, TX

### **8:30 AM Transcriptional Landscape of the Response and Resistance to *Fusarium vasinfectum* Infection in Pima Cotton**

**Damar Lopez-Arredondo**, Texas Tech University, Lubbock, TX

### **8:40 AM Update on Cotton Screening Protocol for FOV-4**

**Jim Olvey**<sup>1</sup>, Mike Olvey<sup>1</sup>, Don C Jones<sup>2</sup>, Christopher Saski<sup>3</sup> and Stephen Parris<sup>3</sup>, (1)O&A Enterprises, Maricopa, AZ, (2)Cotton Incorporated, Cary, NC, (3)Clemson University, Clemson, SC

### **8:50 AM Identification of Mycoviruses to Control Fusarium Wilt of Cotton in the Southwestern United States**

**Akhtar Ali**, Department of Biological Science, The University of Tulsa, Tulsa, OK

### **9:00 AM Viruses Infecting Cotton in Southwestern States**

**Akhtar Ali**, Department of Biological Science, The University of Tulsa, Tulsa, OK

### **9:10 AM Automated Plant Virus Community Pipeline for High-Throughput Viral Genome Assembly to Facilitate Pathogen Surveillance in Cotton-Vegetable Agroecosystems**

**Cory Von Keith**, M. Javed Iqbal and Judith K Brown, University of Arizona, Tucson, AZ

### **9:20 AM Viruses of Cotton in Mississippi: Cotton Leafroll Dwarf Virus and Beyond**

Nina Aboughanem-Sabanadzovic<sup>1</sup>, Jodi Scheffler<sup>2</sup>, Tom Allen<sup>3</sup> and **Sead Sabanadzovic**<sup>1</sup>, (1)Mississippi State University, Mississippi State, MS, (2) USDA ARS, Stoneville, MS, (3)Mississippi State University, Stoneville, MS

### **9:30 AM RNA Enrichment, Illumina Sequencing, and Comparative Sequence Analysis of Cotton Leafroll Dwarf Virus (CLRDV) Genomes from Cotton Samples Collected in Different U.S. Locations**

**Raphael O Adegbola**, Cory Von Keith, Dinusha C. Maheepala and Judith K Brown, University of Arizona, Tucson, AZ

### **9:40 AM Physiological and Molecular Interactions of Cotton Leafroll Dwarf Virus with the Host**

**Cesar Escalante**<sup>1</sup>, Kipling S. Balkcom<sup>2</sup>, Alana Lynn Jacobson<sup>1</sup> and Kassie Conner<sup>1</sup>, (1)Auburn University, Auburn, AL, (2)USDA-ARS, Auburn, AL



**COTTON DISEASE COUNCIL  
THURSDAY LATE MORNING**

**Preservation Hall Studio 8 - 10:30 AM-12:00 PM**

**10:30 AM A Multi-Year Evaluation of Fungicides for Management of Foliar Cotton Diseases in Colquitt County, Georgia**

**Jeremy M. Kichler**, University of Georgia Cooperative Extension, Moultrie, GA and Robert Kemeraït, University of Georgia, Tifton, GA

**10:40 AM Evaluating Aerial Fungicide Carrier Rates in Cotton**

**Seth Thomas McAllister**, University of Georgia Cooperative Extension, Dawson, GA

**10:50 AM A Constitutive Defense-Response Transcriptional Program Underlies Root-Knot Nematode Resistance in *Gossypium hirsutum***

**Damar Lopez-Arredondo**, Texas Tech University, Lubbock, TX

**11:00 AM Field Testing of Cotton Cultivars with Stacked Resistance to Reniform and Southern Root-Knot Nematodes Compared with Conventional Nematicides**

**Zane J. Grabau**, University of Florida, Gainesville, FL

**11:10 AM Utility of New Resistant Cotton Varieties for Management of Reniform Nematode (*Rotylenchulus reniformis*) and Southern Root-Knot Nematode (*Meloidogyne incognita*) in Louisiana**

**Tristan Watson**, LSU AgCenter, Baton Rouge, LA

**11:20 AM Impacts of Traditional and Translational Resistance on Bacterial Blight of Cotton**

**Brian Kvitko**<sup>1</sup>, Jovana Mijatovic<sup>1</sup>, Philip Adepoju<sup>1</sup> and Robert Kemeraït<sup>2</sup>, (1) University of Georgia, Athens, GA, (2) University of Georgia, Tifton, GA

**11:30 AM Lygus Bug Transmission of Boll Rotting Bacteria in the Field**

**Enrique G. Medrano**, USDA-ARS, College Station, TX and James P. Glover, USDA-ARS, Stoneville, MS, MS

**11:40 AM Performance of Seed Treatments Controlling Cotton Seedling Disease: A Meta-Analysis**

**Elias Zuchelli**<sup>1</sup>, Shelly Neill Pate<sup>1</sup>, Rachel R. Guyer<sup>1</sup>, E. Schutz<sup>1</sup>, M. B. Bayles<sup>2</sup>, Akhtar Ali<sup>3</sup>, Thomas W. Allen<sup>4</sup>, Tessie Wilkerson<sup>5</sup>, Robert Kemeraït<sup>6</sup>, Kathy S Lawrence<sup>7</sup>, Amanda Strayer-Scherer<sup>8</sup>, Cecilia Monclova-Santana<sup>9</sup>, Terry A. Wheeler<sup>10</sup>, Madison L. Woodward<sup>9</sup>, Jason Woodward<sup>11</sup>, Lindsey D. Thiessen<sup>12</sup>, Thomas Isakeit<sup>13</sup>, Hillary Mehl<sup>14</sup>, Paul Price<sup>15</sup>, P. D. Colyer<sup>16</sup>, Alejandro Rojas<sup>17</sup>, Terry Spurlock<sup>18</sup>, Ian Small<sup>19</sup> and Heather M Kelly<sup>1</sup>, (1) University of Tennessee, Jackson, TN, (2) Oklahoma State University, Stillwater, OK, (3) Department of Biological Science, The University of Tulsa, Tulsa, OK, (4) Mississippi State University, Delta Research and Extension Center, Stoneville, MS, (5) Mississippi State University-Delta Research and Extension Center, Stoneville, MS, (6) University of Georgia, Tifton, GA, (7) Auburn University, Auburn University, AL, (8) Auburn University, Auburn, AL, (9) Texas A&M AgriLife Extension, Lubbock, TX, (10) Texas A&M AgriLife Research, Lubbock, TX, (11) Corteva Agriscience, Indianapolis, IN, (12) NC State University, Raleigh, NC, (13) Texas A&M University, College Station, TX, (14) Virginia Tech, Suffolk, VA, (15) Louisiana State University, Winnsboro, LA, (16) LSU AgCenter, Bossier City, LA, (17) University of Arkansas, Fayetteville, AR, (18) University of Arkansas, Monticello, AR, (19) University of Florida, Quincy, FL

# Cotton Ginning Conference

## JOINT SESSION: COTTON GINNING CONFERENCE AND COTTON ENGINEERING SYSTEMS CONFERENCE

*Preservation Hall Studios 2 - 3 - 8:00 AM-10:00 AM*

**8:00 AM Electrical Energy Variables for Hand-Fed Tabletop Gins**

**Sean P Donohoe**, Cody D. Blake, Femi Peter Alege and Joe W. Thomas, USDA ARS, Stoneville, MS

**8:15 AM Modeling the Performance of Two Experimental High-Capacity Roller Gin Reclaimers to Assess the Impact of Carryover to Seed Ratio and Saw Speed**

**Jaya Shankar Tumuluru**, Carlos B. Armijo, Derek P. Whitelock and Paul A. Funk, USDA-ARS Southwestern Cotton Ginning Research Laboratory, Mesilla Park, NM

**8:30 AM A New Tool for Handling and Rotating Round Modules**

**John D. Wanjura**, Gregory A. Holt and Mathew G. Pelletier, USDA-ARS Cotton Production and Processing Research Unit, Lubbock, TX

**8:45 AM Predictive Maintenance from Lummus Ag Technology - 2023**

**Pravin J. Chaubey**, Lummus Ag Technology, Savannah, GA and Ross D. Rutherford, Lummus Ag Technology, Lubbock, TX

**9:00 AM Cotton Wads Drying in Conveyor Belt System: CFD Simulations**

**Sunil Kumar**, Robert G. Hardin IV and Maria D King, Texas A&M University, College Station, TX

**9:15 AM Calculation of Emission Factors for Cotton Gin Burr Piles**

**Garrett Shaw**, Texas A&M University, College Station, TX

**9:30 AM Closed-Loop Brush-Based Plastic Removal System for Cotton Gin Module Feeders**

**Adeyemi A. Adeleke**<sup>1</sup>, Robert G. Hardin IV<sup>1</sup> and Mathew G. Pelletier<sup>2</sup>, (1) Texas A&M University, College Station, TX, (2)USDA-ARS Cotton Production and Processing Research Unit, Lubbock, TX

# Cotton Improvement Conference

## COTTON IMPROVEMENT THURSDAY MORNING

*Preservation Hall Studio 7 - 8:00 AM-9:30 AM*

**8:00 AM New Developments in Cotton from BASF**

**Cody W Mull**, BASF, Idalou, TX, Cory Mills, BASF, Lubbock, TX, BASF, Lubbock, TX, Greg Baldwin, BASF, Research Triangle Park, NC, BASF, Research Triangle Park, NC and Adam C. Hixson, BASF, Lubbock, TX

**8:15 AM Deltapine Class of 23 Cotton Varieties**

**David W Albers**, Bayer Crop Science, Starkville, MS and Eric Best, Bayer Crop Science, Lubbock, TX

**8:30 AM Awards & Business Meeting**

**Cody W Mull**, BASF, Idalou, TX and Carol Mason Kelly, Texas A&M AgriLife Research, Lubbock, TX

# Cotton Insect Research and Control Conference

## COTTON INSECT RESEARCH & CONTROL CONFERENCE THURSDAY EARLY MORNING - SESSION A

### *Salons A - C - 8:00 AM-9:30 AM*

#### **8:00 AM Observations of Thryvon and Grower Standards for Thrips Control in Commercial Fields**

**Phillip Roberts<sup>1</sup>**, David Shane Curry<sup>2</sup>, Michasia Dowdy<sup>3</sup>, Sarah Hobby<sup>1</sup>, Sydni C. Ingram<sup>4</sup>, Jeremy M Kichler<sup>5</sup>, Seth Thomas McAllister<sup>6</sup>, Peyton Sapp<sup>7</sup>, Ashley Smith<sup>8</sup> and William G. Tyson<sup>9</sup>, (1)University of Georgia, Tifton, GA, (2)University of Georgia, Baxley, GA, (3)University of Georgia, Valdosta, GA, (4)University of Georgia, Thomasville, GA, (5)UGA Cooperative Extension, Moultrie, GA, (6)University of Georgia Cooperative Extension, Dawson, GA, (7)University of Georgia Cooperative Extension, Waynesboro, GA, (8) University of Georgia, Douglas, GA, (9)University of Georgia Cooperative Extension, Statesboro, GA

#### **8:15 AM Evaluation of Thrips Management Strategies in Thryvon Cotton across the Southeast**

**Scott H. Graham**, Auburn University, Auburn University, AL, Jeremy Greene, Clemson University, Blackville, SC, Phillip Roberts, University of Georgia, Tifton, GA, Sally Taylor, Virginia Tech, Suffolk, VA and Dominic Reisig, North Carolina State University, Plymouth, NC

#### **8:30 AM Efficacy of Thryvon Cotton Against Thrips in Texas High Plains Cotton**

**Suhas Vyavhare**, Texas A&M AgriLife Research Center, Lubbock, TX

#### **8:45 AM Updates from the 2022 Bayer Thryvon™ Ground Breakers® Trials**

**Timothy Dabbert**, Bayer Crop Science, Creve Couer, MO

#### **9:00 AM Tobacco Thrips Resistance to Organophosphate Insecticides in the Midsouth and Southeast**

**Sebe Brown**, University of Tennessee, Jackson, TN, Tyler B Towles, LSU AgCenter, Winnsboro, LA, Whitney Crow, Mississippi State University, Stoneville, MS, Benjamin C Thrash, University of Arkansas, Lonoke, AR, Nick R. Bateman, University of Arkansas - RREC, Stuttgart, AR, David L Kerns, Texas A&M AgriLife Extension, College Station, TX and Anders S. Huseeth, North Carolina State University, Raleigh, NC

#### **9:15 AM Management of Thrips in Mid-South Cotton**

**Don Cook<sup>1</sup>**, Whitney Crow<sup>1</sup>, Sebe Brown<sup>2</sup>, Benjamin C Thrash<sup>3</sup>, David Kerns<sup>4</sup>, Glenn Studebaker<sup>5</sup>, Tyler B Towles<sup>6</sup> and Nick R. Bateman<sup>7</sup>, (1)Mississippi State University, Stoneville, MS, (2)University of Tennessee, Jackson, TN, (3) University of Arkansas, Lonoke, AR, (4)Texas A&M University, College Station, TX, (5)University of Arkansas, Keiser, AR, (6)LSU AgCenter, Winnsboro, LA, (7) University of Arkansas - RREC, Stuttgart, AR

## COTTON INSECT RESEARCH & CONTROL CONFERENCE THURSDAY EARLY MORNING - SESSION B

### *Galerie 2 - 8:00 AM-9:45 AM*

#### **8:00 AM Monitoring Bt Resistance and Bt Cotton Trait Performance in 2022**

**David L Kerns<sup>1</sup>**, Sebe Brown<sup>2</sup>, Don Cook<sup>3</sup>, Whitney Crow<sup>3</sup>, Haley D Kennedy<sup>4</sup>, Glenn Studebaker<sup>5</sup>, Benjamin C Thrash<sup>6</sup>, Tyler B Towles<sup>7</sup> and Fei Yang<sup>4</sup>, (1)Texas A&M AgriLife Extension, College Station, TX, (2)University of

Tennessee, Jackson, TN, (3)Mississippi State University, Stoneville, MS, (4) Texas A&M University, College Station, TX, (5)University of Arkansas, Keiser, AR, (6)University of Arkansas, Lonoke, AR, (7)LSU AgCenter, Winnsboro, LA

**8:15 AM Stability of *Helicoverpa zea* Strains Possessing Resistance to Cry1A, Cry2A and Vip3Aa Proteins, and Their Ability to Survive on Different Blended Bt Proteins**

**Fei Yang**, Texas A&M University, College Station, TX and David L Kerns, Texas A&M AgriLife Extension, College Station, TX

**8:30 AM Visual, Automated Identification of US Cotton Bollworm Versus Budworm Eggs Using Artificial Intelligence: What Next**

**R. Michael Roe**<sup>1</sup>, John Efromson<sup>2</sup>, Roger D Lawrie<sup>3</sup>, Thomas Jedidiah Jenks Doman<sup>2</sup>, Matthew Bertone<sup>4</sup>, Aurelien Begue<sup>2</sup>, Mark Harfouche<sup>2</sup> and Dominic Reisig<sup>5</sup>, (1)North Carolina State University, Raleigh, NC, (2)Ramona Optics Inc., Durham, NC, (3)University of Puerto Rico, San Juan, PR, (4)NC State University, Raleigh, NC, (5)North Carolina State University, Plymouth, NC

**8:45 AM A Decade of Cotton Aphid Research with Isoclast in the Western US**

**Jesse M Richardson**, Corteva Agriscience, Mesa, AZ, Ian M Grettenberger, University of California-Davis, Davis, CA, CA, Sunil Tewari, Corteva Agriscience, Madera, CA and Patricia L Prasifka, Corteva Agriscience, West Fargo, ND

**9:00 AM New Genomic Resources for Boll Weevil, and Source Estimation for Re-Infestations of Previously Eradicated Areas**

**Tyler Jay Raszick**<sup>1</sup>, Lindsey C Perkin<sup>2</sup>, Zach Cohen<sup>3</sup>, Xanthe Shirley<sup>4</sup>, Raul Ruiz-Arce<sup>5</sup>, Charles P.-C. Suh<sup>2</sup> and Gregory A. Sword<sup>1</sup>, (1)Texas A&M University, College Station, TX, (2)USDA-ARS ICCDRU, College Station, TX, (3) USDA-ARS, College Station, TX, (4)USDA APHIS PPQ, College Station, TX, (5) USDA-APHIS, Edinburg, TX

**9:15 AM Revival of Cotton Crop in Pakistan by Using Four Brothers (FB) Next Generation (NG) Cotton Technologies**

**Arfan Ali**, Daniyal Jawed Qureshi, Hamza Nadeem Qureshi and Jawed Salim Qureshi, Four Brothers Group, Lahore, Pakistan

**9:30 AM Effect of Different Combinations of Planting Dates and Varieties on Crop Phenology, Whitefly Population and Incidence of CLCuD Under Different Conditions**

**Muhammad Iqbal**, Punjab Agriculture Department (Extension and Adaptive Research), Khanewal, Pakistan, Muhammad Jalal Arif, University of Agriculture, Faisalabad, Pakistan, Shafqat Saeed, MNS University of Agriculture, Multan, Pakistan and Noor Abid Saeed, The Nuclear Institute for Agriculture and Biology, Faisalabad, Pakistan

# Cotton Weed Science Research Conference

COTTON WEED SCIENCE RESEARCH  
GRADUATE STUDENT AWARDS

*Preservation Hall Studio 9 – 9:45 AM-10:15 AM*

**Tuesday, January 10, 2023**  
**Wednesday, January 11, 2023**  
**Thursday, January 12, 2023**

# **TECHNICAL CONFERENCES POSTER BOARD SESSION**

**TUESDAY, JANUARY 10, 2023, 8:00 AM - 8:00 PM**  
**WEDNESDAY, JANUARY 11, 2023, 8:00 AM - 10:00 PM**  
**THURSDAY, JANUARY 12, 2023, 8:00 AM - 12:00 PM**

*Mardi Gras Ballroom Salons E - H*

**POSTERS WILL BE ON DISPLAY OUTSIDE  
OF GALERIE 3 FOR THE FOLLOWING:  
COTTON ECONOMICS AND MARKETING CONFERENCE**

## **Cotton Agronomy, Physiology & Soil Conference Posters**

- 1. Reevaluation of Last Effective Bloom Dates for Cotton in NC**  
**Guy D. Collins<sup>1</sup>**, Keith L. Edmisten<sup>2</sup>, Anthony Growe<sup>3</sup>, Michael Phillips<sup>2</sup>, Charlie Cahoon<sup>2</sup>, Jacob C Forehand<sup>2</sup>, Jose S de Sanctis<sup>2</sup> and Brock A Dean<sup>2</sup>, (1)NC State University, Rocky Mount, NC, (2)North Carolina State University, Raleigh, NC, (3)NC State University, Rockingham, NC
- 2. Evaluating Skip-Row Patterns and the Ultra-Wide-Row (72-inch) System in NC Cotton**  
**Michael Phillips<sup>1</sup>**, Guy D. Collins<sup>2</sup>, Keith L. Edmisten<sup>1</sup>, Jeremy Hendricks<sup>1</sup> and Benton Fine<sup>1</sup>, (1)North Carolina State University, Raleigh, NC, (2)NC State University, Rocky Mount, NC
- 3. Allelopathic Cover Crops for Alternative Weed Control in a Semi-Arid Transitional Organic System**  
**Lauren E Selph**, Texas A&M AgriLife, Lubbock, TX, Katie L. Lewis, Texas A&M AgriLife Research and Extension Center, Lubbock, TX and Paul DeLaune, Texas A&M AgriLife Research, Vernon, TX
- 4. Assessing the Physiological Basis of Genetic Yield Improvement and Seedling Vigor in Advanced Cotton Breeding Lines**  
**Gurpreet Virk**, John L. Snider, Peng Chee, Simerjeet Virk, Ved Parkash and Navneet Kaur, University of Georgia, Tifton, GA
- 5. Impacts of Wide Row Spacings on Yield Components of Cotton**  
**Caitlyn B Lawton**, John L. Snider, Phillip Roberts, Peng Chee and Lavesta C. Hand, University of Georgia, Tifton, GA
- 6. Response of Cotton Cultivars with Differing Maturities to End-of-Season Irrigation Termination Times**  
**Bailey Lawson**, John L. Snider, George Vellidis, Lavesta C. Hand, Wesley M Porter, Devendra Prasad Chalise, Joshua M. Lee, Amrit Pokhrel and Navneet Kaur, University of Georgia, Tifton, GA
- 7. Effects of Irrigation, Nitrogen Application Rate, and Plant Growth Regulation on Biomass, Nutrient Uptake, and Lint Yield**  
**John L. Snider**, Ved Parkash, Josh Lee, Lavesta C. Hand, Amrit Pokhrel and R Bailey Lawson, University of Georgia, Tifton, GA

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8. **Interactive Effects of Drought Stress and Nitrogen Deficiency on the Mechanistic Drivers of Net Photosynthesis in Field-Grown Cotton**  
**Ved Parkash**, John L. Snider, Gurpreet Virk and Joshua Lee,  
 University of Georgia, Tifton, GA
9. **2022 UGA Cotton on-Farm Variety Evaluation Program Preliminary Results**  
**Lavesta C. Hand<sup>1</sup>**, Chandler Rowe<sup>1</sup>, Wade Parker<sup>2</sup>, Holly Anderson<sup>3</sup>, Tony L. Barnes<sup>4</sup>, John Bennett<sup>5</sup>, Derrick Bowen<sup>6</sup>, Cody Bowling<sup>7</sup>, Andy Carter<sup>8</sup>, Blake Carter<sup>9</sup>, Jackson C. Cloud<sup>10</sup>, Jeff Cook<sup>11</sup>, Braxton Crews<sup>12</sup>, Joshua Dawson<sup>13</sup>, Jason D. Edenfield<sup>14</sup>, Phillip Edwards<sup>15</sup>, Morgan Grizzle<sup>16</sup>, Guy Hancock<sup>17</sup>, Justin Hand<sup>1</sup>, Brian W. Hayes<sup>18</sup>, Jeremy M. Kichler<sup>19</sup>, Madison Luke<sup>20</sup>, Seth Thomas McAllister<sup>21</sup>, Jennifer T. Miller<sup>22</sup>, Jay Porter<sup>23</sup>, Cody Powell<sup>24</sup>, Steven Powell<sup>25</sup>, Tucker Price<sup>17</sup>, Ben Reeves<sup>26</sup>, Colby Royal<sup>27</sup>, Pam Sapp<sup>1</sup>, Peyton Sapp<sup>28</sup>, Ashley Smith<sup>29</sup>, Bill Starr<sup>30</sup>, Savannah Tanner<sup>31</sup>, William G. Tyson<sup>32</sup>, Regan Veal<sup>1</sup>, Clark Wiggins<sup>33</sup>, Anthony Black<sup>34</sup>, Eric Elsner<sup>35</sup> and Scott Rogers<sup>36</sup>, (1) University of Georgia, Tifton, GA, (2)University of Georgia, Millen, GA, (3)University of Georgia Cooperative Extension, Fitzgerald, GA, (4)University of Georgia Cooperative Extension, Pearson, GA, (5)University of Georgia, Rochelle, GA, (6)University of Georgia, Reidsville, GA, (7)University of Georgia, Donalsonville, GA, (8) University of Georgia, Valdosta, GA, (9)University of Georgia Cooperative Extension Service, Springfield, GA, (10)University of Georgia Cooperative Extension, Cairo, GA, (11)University of Georgia, Fort Valley, GA, (12)University of Georgia, Preston, GA, (13)UGA Cooperative Extension Service - Lowndes County, Valdosta, GA, (14)UGA Cooperative Extension Service - Toombs County, Lyons, GA, (15)University of Georgia Cooperative Extension, Ocilla, GA, (16)University of Georgia, Perry, GA, (17) University of Georgia, Athens, GA, (18)University of Georgia Cooperative Extension, Camilla, GA, (19)University of Georgia Cooperative Extension, Moultrie, GA, (20)University of Georgia, Oglethorpe, GA, (21)University of Georgia Cooperative Extension, Dawson, GA, (22)University of Georgia Cooperative Extension, Hazlehurst, GA, (23)University of Georgia, Hawkinsville, GA, (24) University of Georgia, Colquitt, GA, (25)University of Georgia, Soperton, GA, (26)University of Georgia, Nashville, GA, (27) University of Georgia, McRae, GA, (28)University of Georgia Cooperative Extension, Waynesboro, GA, (29)University of Georgia, Douglas, GA, (30)The University of Georgia, Athens, GA, (31)University of Georgia, Swainsboro, GA, (32)University of Georgia Cooperative Extension, Statesboro, GA, (33)University of Georgia, Bainbridge, GA, (34)University of Georgia, Midville, GA, (35)University of Georgia, Watkinsville, GA, (36)University of Georgia, Plains, GA
10. **Third Year Results for 48-Inch Row Cotton in South Alabama**  
**Steve M Brown** and Samuel A Frazier, Auburn University, Auburn University, AL
11. **Third Year Results for Seeding Rate Trials in Alabama**  
**Steve M Brown** and Samuel A Frazier, Auburn University, Auburn University, AL

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12. **Evaluation of Nitrpyrin to Aid Nitrogen Management in Cotton**  
**Carrie C Ortel**<sup>1</sup>, Trenton L Roberts<sup>1</sup>, Kyle A Hoegenauer<sup>1</sup>, Gerson L Drescher<sup>1</sup>, Alden D Smartt<sup>1</sup> and Linda Martin<sup>2</sup>, (1)University of Arkansas, Fayetteville, AR, (2)University of Arkansas, Rohwer, AR
13. **Estimating Physiological Contributors to Yield Loss Under Nitrogen Stress in Cotton**  
**Amrit Pokhrel**, John L. Snider, Simerjeet Virk, Henry Yabbey Sintim, Lavesta C. Hand, George Vellidis, Ved Parkash, Devendra Prasad Chalise and Joshua M. Lee, University of Georgia, Tifton, GA
14. **The Impacts on Yield, Fiber Quality, and Net Returns with Mixing Two Cottonseed Cultivars on-Farm**  
**Meredith L McGlamory**<sup>1</sup>, Jeremy M. Kichler<sup>2</sup>, William G. Tyson<sup>3</sup>, Colton Scott Moon<sup>4</sup>, Ben Reeves<sup>5</sup>, Tony L. Barnes<sup>6</sup> and Lavesta C. Hand<sup>1</sup>, (1)University of Georgia, Tifton, GA, (2)University of Georgia Cooperative Extension, Moultrie, GA, (3)University of Georgia Cooperative Extension, Statesboro, GA, (4)UGA Extension, Cochran, GA, (5)University of Georgia, Nashville, GA, (6)University of Georgia Cooperative Extension, Pearson, GA
15. **Analyzing Benefits of Nematode Resistant Cotton Varieties**  
**Blake Carter**, University of Georgia Cooperative Extension Service, Springfield, GA, Robert Kemerait, University of Georgia, Tifton, GA and Jason E. Mallard, University of Georgia Extension, Statesboro, GA
16. **Assessment of Nitrogen Contribution By Biological Additives**  
**Raedan L Sharry**, Michaela Smith and Brian Arnall, Oklahoma State University, Stillwater, OK
17. **The Effect of Plant Growth Management and Drought Stress on Yield Components and Fiber Quality of Field Grown Cotton**  
**Joshua M. Lee**, John L. Snider, Lavesta C. Hand, Phillip Roberts, A. Stanley Culpepper, Devendra Prasad Chalise, Amrit Pokhrel, Navneet Kaur, Ved Parkash, Gurpreet Virk and R Bailey Lawson, University of Georgia, Tifton, GA
18. **Comparison of Baler-Picker on-Board Scale Vs Weigh-Trailer Scale**  
**Dale A. Mott**<sup>1</sup>, Benjamin M. McKnight<sup>1</sup> and Tyler Mays<sup>2</sup>, (1)Texas A&M AgriLife Extension Service, College Station, TX, (2)Texas A&M AgriLife Extension Service, Hillsboro, TX
19. **Improving NUE in Cotton with UAV Based Sensing**  
**Michaela Smith** and Raedan L Sharry, Oklahoma State University, Stillwater, OK
20. **Mississippi on Farm Cotton Variety Performance**  
**Brian K. Pieralisi**<sup>1</sup>, William Joseph Rutland<sup>1</sup>, Bradley Norris<sup>2</sup>, Eli B. Hobbs<sup>1</sup> and Tyler S Soignier<sup>1</sup>, (1)Mississippi State University, Starkville, MS, (2)Mississippi State University, Mississippi State, MS
21. **Sulfur Nutrition for Cotton in the Southeast**  
**Lindsay G McDonald** and Glendon Harris, University of Georgia, Tifton, GA

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22. **Cotton Variety Performance in Mississippi**  
**Bradley Norris**<sup>1</sup>, Brian K. Pieralisi<sup>2</sup>, Tyler S Soignier<sup>2</sup>, William Joseph Rutland<sup>2</sup>, Eli B. Hobbs<sup>2</sup>, Thomas W. Allen<sup>3</sup> and Corey J Bryant<sup>2</sup>, (1)Mississippi State University, Mississippi State, MS, (2) Mississippi State University, Starkville, MS, (3)Mississippi State University, Delta Research and Extension Center, Stoneville, MS
23. **Impact of Reduced Management Inputs on Cotton Lint Yield, Fiber Quality, and Profitability**  
**Michael A. Jones**, Clemson University, Florence, SC and B. Todd Campbell, USDA-ARS, Florence, SC
24. **Linkage Drag Associated with Introgression of *Meloidogyne incognita* Resistant Genes from Wild Relatives into Upland Cotton**  
**Dalton M West**<sup>1</sup>, Edward L Lubbers<sup>1</sup>, Richard Davis<sup>2</sup>, Andrew Paterson<sup>3</sup> and Peng Chee<sup>1</sup>, (1)University of Georgia, Tifton, GA, (2)USDA-ARS, Tifton, GA, (3)College of Agricultural and Environmental Sciences, The University of Georgia, Athens, GA
25. **Evaluation of Plant Population on Varieties in Arkansas Large-Plot Variety Trials**  
Bill Robertson, Joe McAlee, N. Ray Benson, **Colton Henderson**, Jace Clark and Darlene Madden, University of Arkansas System Division of Ag, Newport, AR
26. **Evaluation of Harvest-Aids for Texas Cotton Production in 2022**  
**Benjamin M. McKnight** and Dale A. Mott, Texas A&M AgriLife Extension Service, College Station, TX
27. **Evaluation of Cotton in Large-Plot on-Farm Variety Testing in Arkansas for 2022**  
**Joe McAlee**, Bill Robertson, Colton Henderson, Jace Clark and Darlene Madden, University of Arkansas System Division of Ag, Newport, AR
28. **Managing Cotton Potassium Deficiency in the Blackland Prairie of Texas with in Season Potassium Applications**  
**D. Tyler Mays**, Texas A&M AgriLife Extension Service, Hillsboro, TX, Matthew Matocha, Texas A&M University, College Station, College Station, TX and Dale A. Mott, Texas A&M AgriLife Extension Service, College Station, TX
29. **Knowledge and Experiences Gained through My Crop Physiology Internship.**  
Kendall Sheldon, **Madeline Kail**, Isha Poudel and Avat Shekoofa, University of Tennessee, Jackson, TN
30. **Research Experience on the Career of Undergraduates in Agriculture Disciplines**  
**Blair Stinson**, Kendall Sheldon, Isha Poudel and Avat Shekoofa, University of Tennessee, Jackson, TN
31. **Investigating Effects of Weather and Cultural Practices on Lint Yield and Fiber Quality in Cotton Variety Trials during 2012 to 2022**  
**Emi Kimura**<sup>1</sup>, TJ Payne<sup>1</sup>, Dane Leija<sup>1</sup>, Jonathan Ramirez<sup>2</sup> and Paul DeLaune<sup>3</sup>, (1)Texas A&M AgriLife Extension Service, Vernon, TX, (2)Texas A&M AgriLife Extension Service, Corpus Christi, TX, (3) Texas A&M AgriLife Research, Vernon, TX



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32. **Tillage and Cover Crop Effects on Windmillgrass and Cotton Production**  
Charles Coufal, Jerry Adams, **Paul DeLaune** and Domingo Patlan,  
Texas A&M AgriLife Research, Vernon, TX
  
33. **Determining Optimum Cover Crop Seeding Rates in Dryland Cotton Systems**  
**Jerry Adams**<sup>1</sup>, Charles Coufal<sup>1</sup>, Paul DeLaune<sup>1</sup>, Emi Kimura<sup>2</sup> and Domingo Patlan<sup>1</sup>, (1)Texas A&M AgriLife Research, Vernon, TX, (2) Texas A&M AgriLife Extension Service, Vernon, TX
  
34. **Assessing Physiological Contributors to Productivity of Diverse Cotton Genotypes**  
**Navneet Kaur**<sup>1</sup>, John L. Snider<sup>1</sup>, Andrew Paterson<sup>2</sup>, Gurpreet Virk<sup>1</sup> and Ved Parkash<sup>1</sup>, (1)University of Georgia, Tifton, GA, (2)College of Agricultural and Environmental Sciences, The University of Georgia, Athens, GA
  
35. **Cotton Planting Seed Quality Survey; An Extension Cotton Specialists Collaboration**  
**Murilo Maeda**<sup>1</sup>, Steve M Brown<sup>2</sup>, Seth A. Byrd<sup>3</sup>, Kent D. Chapman<sup>4</sup>, Guy D. Collins<sup>5</sup>, Michael K. Dowd<sup>6</sup>, Keith Edmisten<sup>7</sup>, Hunter Frame<sup>8</sup>, Michael A. Jones<sup>9</sup>, Benjamin M. McKnight<sup>10</sup>, Calvin D Meeks<sup>11</sup>, Gaylon Morgan<sup>12</sup>, Randy Norton<sup>13</sup>, Brian Pieralisi<sup>14</sup>, Tyson B Raper<sup>15</sup>, Bill Robertson<sup>16</sup>, Tyler Sandlin<sup>17</sup>, John L. Snider<sup>18</sup>, Lori Unruh Snyder<sup>7</sup> and David L. Wright<sup>19</sup>, (1)Texas A&M AgriLife Extension, Lubbock, TX, (2)Auburn University, Auburn University, AL, (3)Oklahoma State University, Stillwater, OK, (4)University of North Texas, Denton, TX, (5)North Carolina State University, Rocky Mount, NC, (6)USDA-ARS Southern Regional Research Center, New Orleans, LA, (7)North Carolina State University, Raleigh, NC, (8)Virginia Polytechnic Institute & State University, Blacksburg, VA, (9)Clemson University, Florence, SC, (10)Texas A&M AgriLife Extension Service, College Station, TX, (11)University of Missouri, Portageville, MO, (12)Cotton Incorporated, Cary, NC, (13) University of Arizona, Safford, AZ, (14)Mississippi State University, Starkville, MS, (15)University of Tennessee, Jackson, TN, (16) University of Arkansas System Division of Ag, Newport, AR, (17) Auburn University, Belle Mina, AL, (18)University of Georgia, Tifton, GA, (19)University of Florida, Quincy, FL
  
36. **Semi-Arid Cotton Production and Soil Characterization Following Long-Term Cover Crops and No-Tillage**  
**Tessa Bennett**<sup>1</sup>, Katie L. Lewis<sup>2</sup>, Joseph Alan Burke<sup>3</sup>, Christopher Cobos<sup>3</sup> and J. Wayne Keeling<sup>4</sup>, (1)Texas A&M Agrilife Research, Lubbock, TX, (2)Texas A&M AgriLife Research and Extension Center, Lubbock, TX, (3)Texas A&M AgriLife Research, Lubbock, TX, (4)Texas A&M AgriLife Research Center, Lubbock, TX
  
37. **Determining the Percent of Visual Mechanical Damage of Cotton Seed**  
**Marisa Crisp**, NC State, Raleigh, NC and Lori Unruh-Snyder, NC State, Zebulon, NC
  
38. **Boll Size, Seed Size and Relationships to Lint Yield Observed in the 2022 Tennessee Official Variety Trial**  
**Samuel Reeves**, Patricia de Sousa Soares, Ryan Blair, Matthew Davis and Tyson B Raper, University of Tennessee, Jackson, TN

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39. **Utilizing UAS Multispectral Data to Assess Nitrogen Nutrition in Irrigated Cotton**  
**Kyle A Hoegenauer**, Trenton L Roberts, Gerson L Drescher, Alden D Smartt, Carrie C Ortel and Carrie Ann Followell, University of Arkansas, Fayetteville, AR
40. **Overview of the 2022 Tennessee Cotton County Standard Testing Program**  
**Matthew Davis**<sup>1</sup>, Ryan Blair<sup>1</sup>, Lindsay Stephenson<sup>2</sup>, Jake Mallard<sup>1</sup>, Becky Muller<sup>3</sup>, Jeff Via<sup>1</sup>, Tyson B Raper<sup>1</sup> and Samuel Reeves<sup>1</sup>, (1) University of Tennessee, Jackson, TN, (2)University of Tennessee, Brownsville, TN, (3)University of Tennessee, Jackson, TN
41. **Cover Crop Influence on Potassium Uptake Dynamics in the Southeastern Cotton Belt**  
**Eli B. Hobbs**<sup>1</sup>, Brian K. Peralisi<sup>1</sup>, Darrin M. Dodds<sup>2</sup>, Angus Catchot<sup>2</sup>, Hunter Perry<sup>3</sup>, Tyler S Soignier<sup>1</sup>, Bradley Norris<sup>2</sup> and William Joseph Rutland<sup>1</sup>, (1)Mississippi State University, Starkville, MS, (2)Mississippi State University, Mississippi State, MS, (3)Corteva Agriscience, Leland, MS
42. **Side Dress Nitrogen Rate for Broiler-Litter Fertilized Cotton**  
**Rajveer Singh**<sup>1</sup>, Rishi Prasad<sup>1</sup>, Dexter B Watts<sup>2</sup> and Henry A Torbert<sup>2</sup>, (1)Auburn University, Auburn, AL, (2)USDA ARS, Auburn, AL
43. **Evaluation of Cotton Seeding Rate in the Missouri Delta**  
Bradley R Wilson and **Jake Watkins**, University of Missouri, Portageville, MO
44. **The Relationship between Visual Mechanical Damage Seeds and Cotton Cool Test**  
**Reagan Dunn**, NC State, Raleigh, NC and Lori Unruh-Snyder, NC State, Zebulon, NC
45. **Utilizing the Winseedle to Determine Surface Area Abnormalities for Visually Damage Cotton Seeds**  
**Becca Karriker**, NC State, Raleigh, NC and Lori Unruh-Snyder, NC State, Zebulon, NC
46. **Integration of Cover Crops and Organic Amendments Under Different Tillage Systems: Impact on Soil Health and Cotton Productivity**  
**Godfred Ankomah**<sup>1</sup>, Henry Yabbey Sintim<sup>2</sup> and Solomon Amissah<sup>1</sup>, (1)University of Georgia, Tifton Campus, Tifton, GA, (2) University of Georgia, Tifton, GA
47. **Drip Irrigation Scheduling Impact on Cotton Production in West Central Texas**  
**Reagan L. Noland**, Texas A&M Agrilife Extension Service, San Angelo, TX
48. **Evaluation of 60-Inch Row Spacing for Cotton in Louisiana**  
**Matt Foster** and Theresa Mclemore, LSU AgCenter, St. Joseph, LA
49. **Evaluation of Thryvon Cotton As a Control Method of Cotton Fleahoppers *Pseudatomocelis seriatus* (Reuter)**  
**Brady P. Arthur**, Texas A&M University, College Station, TX and David L Kerns, Texas A&M AgriLife Extension, College Station, TX

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50. **Consulting Considerations for Economic Sustainability with Soil Health Management Systems**

**Jessica A Kelton<sup>1</sup>**, Archie A Flanders<sup>2</sup>, Dianna Bagnall<sup>3</sup> and Cristine Morgan<sup>2</sup>, (1)Soil Health Institute, Ashford, AL, (2) Soil Health Institute, Morrisville, NC, (3)Soil Health Institute, Columbia, IL

## **Cotton Disease Council Posters**

51. **Arkansas Foliar Fungicide Trial Summary 2020 - 2022**

Terry Spurlock<sup>1</sup>, **Rafael Zaia<sup>2</sup>**, Alejandro Rojas<sup>2</sup> and Robert Hoyle<sup>3</sup>, (1)University of Arkansas System Cooperative Extension Service, Lonoke, AR, (2)University of Arkansas, Fayetteville, AR, (3)University of Arkansas System Cooperative Extension Service, Monticello, AR

52. **Evaluating Sclerotial Production and Hyphal Growth By *Phymatotrichopsis omnivora* in Several Texas Soils**

**Maxwell Sturdivant**, Texas A&M University, College Station, TX

53. **Cotton Phenotypic Response to Foliar Disease Pressure Under Irrigated and Non-Irrigated Conventional and Sod-Based Rotation Systems**

**Matthew K Burger<sup>1</sup>**, David L. Wright<sup>2</sup>, Ian Small<sup>2</sup> and Kelly George O'Brien<sup>2</sup>, (1)University of Florida NFREC Quincy, Quincy, FL, (2)University of Florida, Quincy, FL

54. **Evaluating Aerial Fungicide Carrier Rates in Georgia Cotton**

**Seth Thomas McAllister<sup>1</sup>**, Robert Kemerait<sup>2</sup>, Simerjeet Virk<sup>2</sup>, Braxton G Crews<sup>3</sup> and Bill Starr<sup>4</sup>, (1)University of Georgia Cooperative Extension, Dawson, GA, (2)University of Georgia, Tifton, GA, (3)UGA Extension, Buena Vista, GA, (4)The University of Georgia, Athens, GA

55. **Multi-Year Evaluation of Cotton Cultivars and Nematicides in a Reniform Infested Field in Arkansas**

**Katherine M Brown**, Michael Emerson and Travis R. Faske, University of Arkansas Division of Agriculture, Lonoke, AR

56. **Cultivar Response to Inoculation with *Xanthomonas citri* pv. *malvacearum* in Mississippi in 2022**

**Thomas W. Allen**, Mississippi State University, Delta Research and Extension Center, Stoneville, MS

57. **Evaluation of Reniform Nematode Resistant Commercially Available Cotton Cultivars Compared with USDA Developed Cotton Breeding Lines**

**Adam Connor<sup>1</sup>**, Tessie Wilkerson<sup>2</sup>, Thomas W. Allen<sup>3</sup>, Alejandra M Jimenez Madrid<sup>1</sup>, Subina Tripathi<sup>1</sup>, Nicholas Tadlock<sup>2</sup>, Sally Stetina<sup>4</sup> and Jack C. McCarty<sup>5</sup>, (1)Mississippi State University, Stoneville, MS, (2)Mississippi State University-Delta Research and Extension Center, Stoneville, MS, (3)Mississippi State University, Delta Research and Extension Center, Stoneville, MS, (4)USDA-ARS, Stoneville, MS, (5)USDA-ARS, Mississippi State, MS

58. **Assessment of PhytoGen Cultivars and Seed Treatment Combinations for Reniform Nematode Control in Mississippi**  
**Subina Tripathi**, Mississippi State University, Stoneville, MS, Tessie Wilkerson, Mississippi State University-Delta Research and Extension Center, Stoneville, MS, Thomas W. Allen, Mississippi State University, Delta Research and Extension Center, Stoneville, MS and Johnathan Siebert, PhytoGen, Leland MS, MS
59. **Report of the Cottonseed Treatment Committee for 2022**  
**Heather M Kelly**<sup>1</sup>, Amanda Blazek<sup>1</sup>, Akhtar Ali<sup>2</sup>, Thomas W. Allen<sup>3</sup>, Tessie Wilkerson<sup>4</sup>, Robert Kemerait<sup>5</sup>, Kathy Lawrence<sup>6</sup>, Amanda Strayer-Scherer<sup>6</sup>, Cecilia Monclova-Santana<sup>7</sup>, Paul Price<sup>8</sup>, Alejandro Rojas<sup>9</sup>, Terry Spurlock<sup>10</sup> and Ian Small<sup>11</sup>, (1)University of Tennessee, Jackson, TN, (2)Department of Biological Science, The University of Tulsa, Tulsa, OK, (3)Mississippi State University, Delta Research and Extension Center, Stoneville, MS, (4)Mississippi State University-Delta Research and Extension Center, Stoneville, MS, (5)University of Georgia, Tifton, GA, (6)Auburn University, Auburn, AL, (7)Texas A&M AgriLife Extension, Lubbock, TX, (8)LSU AgCenter, Winnsboro, LA, (9)University of Arkansas, Fayetteville, AR, (10)University of Arkansas System Cooperative Extension Service, Lonoke, AR, (11)University of Florida, Quincy, FL
60. **Evaluation of the Fungal Interaction between *Fusarium oxysporum* f. sp. *vasinfectum* Race 4 and *Rhizoctonia solani* on Disease Development in Pima and Upland Cotton**  
**Margaret L. Ellis**<sup>1</sup>, Ann Marie Maddox<sup>1</sup>, Jorge Garcia<sup>1</sup>, Christopher M Wallis<sup>2</sup>, Robert B Huttmacher<sup>3</sup> and Mauricio Ulloa<sup>4</sup>, (1)California State University, Fresno, Fresno, CA, (2)Crop Diseases, Pests, and Genetics Research Unit, USDA-ARS SJVASC, Parlier, CA, (3)University of California Cooperative Extension, Davis, CA, (4)USDA-ARS, PA, CSRL, Plant Stress and Germplasm Development Research, Lubbock, TX
61. **Evaluation of a Nematode Seed Treatment for Root Knot Nematode Management in Georgia**  
**Braxton Crews**, University of Georgia, Preston, GA, Robert Kemerait, University of Georgia, Tifton, GA, Seth Thomas McAllister, University of Georgia Cooperative Extension, Dawson, GA and Taylor McDaniel, Randolph County Extension, Cuthbert, GA
62. **Blocking Gossypol Pathway in Cotton Negatively Impact Resistance to Seedling Disease Pathogens**  
Tanya A Wagner<sup>1</sup>, Alois A. Bell<sup>2</sup>, Clint W Magill<sup>3</sup> and **Jinggao Liu**<sup>2</sup>, (1)USDA-ARS-ICCDRU, College Station, TX, (2)USDA-ARS ICCDRU, College Station, TX, (3)Texas A&M University, College Station, TX
63. **Characterization of FOV4 and New *Fusarium* Variants Isolated from Cotton Roots in California and Texas**  
**Timothy O. Jobe**<sup>1</sup>, Jorge Garcia<sup>2</sup>, Mauricio Ulloa<sup>3</sup> and Margaret L. Ellis<sup>2</sup>, (1)USDA-ARS, Lubbock, TX, (2)California State University, Fresno, Fresno, CA, (3)USDA-ARS, PA, CSRL, Plant Stress and Germplasm Development Research, Lubbock, TX

64. **Assessing the Impact of Foliar Diseases through Timed Fungicide Applications and Spore Trapping**  
**Akhtar Ali**, University of Tulsa, Tulsa, OK, Thomas W. Allen, Mississippi State University, Delta Research and Extension Center, Stoneville, MS, Mandy Bish, University of Missouri, Columbia, MO, Kaitlyn Bissonnette, Cotton Inc., Cary, NC, Heather M Kelly, University of Tennessee, Jackson, TN, Robert Kemerait, University of Georgia, Tifton, GA, Daniel McDonald, Phenotype Screening, Knoxville, TN, Cecilia Monclova-Santana, Texas A&M AgriLife Extension, Lubbock, TX, John Mueller, Clemson University, Blackville, SC, Paul Price, LSU AgCenter, Winnsboro, LA, Michael Prorock, mesur.io, Chapel Hill, NC, Ian Small, University of Florida, Quincy, FL, Terry Spurlock, University of Arkansas System Cooperative Extension Service, Lonoke, AR, Amanda Strayer-Scherer, Auburn University, Auburn, AL and Bradley R Wilson, University of Missouri, Portageville, MO
65. **Estimating the Regional Distribution and Potential Impacts of Foliar Diseases through Spore Trapping in Commercial Settings**  
**Akhtar Ali**, University of Tulsa, Tulsa, OK, Thomas W. Allen, Mississippi State University, Delta Research and Extension Center, Stoneville, MS, Mandy Bish, University of Missouri, Columbia, MO, Kaitlyn Bissonnette, Cotton Inc., Cary, NC, Heather M Kelly, University of Tennessee, Jackson, TN, Robert Kemerait, University of Georgia, Tifton, GA, Daniel McDonald, Phenotype Screening, Knoxville, TN, Cecilia Monclova-Santana, Texas A&M AgriLife Extension, Lubbock, TX, John Mueller, Clemson University, Blackville, SC, Paul Price, LSU AgCenter, Winnsboro, LA, Michael Prorock, mesur.io, Chapel Hill, NC, Ian Small, University of Florida, Quincy, FL, Terry Spurlock, University of Arkansas System Cooperative Extension Service, Lonoke, AR, Amanda Strayer-Scherer, Auburn University, Auburn, AL and Bradley R Wilson, University of Missouri, Portageville, MO
66. **Evaluation of Commercial Upland Cotton Varieties for Susceptibility to Fusarium Wilt Race 4 in Texas**  
**Thomas Isakeit**, Texas A&M University, College Station, TX
67. **A Survey of Plant-Parasitic Nematodes in Arizona Cotton Fields**  
**Jiahuai Hu**, University of Arizona, Tucson, AZ
68. **A Multi-Year Review of Management of *Phymatotrichopsis omnivora* in Arizona Cotton Production Systems**  
**Randall Norton**<sup>1</sup>, Jiahuai Hu<sup>2</sup> and Kaleb Bryce<sup>1</sup>, (1)The University of Arizona, Safford, AZ, (2)University of Arizona, Tucson, AZ
69. **Cotton Disease Loss Estimate Committee Report, 2022**  
**Heather M Kelly**, University of Tennessee, Jackson, TN
70. **The Diversity and Virulence of Oomycetes Associated with Cotton Seedlings in Alabama**  
Oluwakemisola Olofintila and **Zachary Noel**, Auburn University, Department of Entomology and Plant Pathology, Auburn University, AL

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## **Cotton Engineering-Systems Conference Posters**

71. **Automating Data Annotation and Curation for a Weed Image Repository**  
**Matthew Kutugata**, Texas A&M University, College Station, TX
72. **Detection of Developing and Mature Cotton Bolls Using a Convolutional Neural Network**  
**Caleb M. Lindhorst**, TAMU, College Station, TX

## **Cotton Ginning Conference Posters**

73. **Evaluation of Cottonseed Moisture Dynamics during Warehouse Storage**  
**Brennan E. Teddy**<sup>1</sup>, Aaron P. Turner<sup>1</sup>, Michael T. Plumblee<sup>2</sup> and Edward M. Barnes<sup>3</sup>, (1)Clemson University, Clemson, SC, (2) Clemson University, Blackville, SC, (3)Cotton Incorporated, Cary, NC

## **Cotton Improvement Conference Posters**

74. **PLD-Mediated Phosphatidic Acid Production Causes Imbibitional Chilling Injury in Upland Cotton (*Gossypium hirsutum* L.)**  
**Lakhvir Kaur** and Rosalyn B Angeles-Shim, Texas Tech University, Lubbock, TX
75. **Status of the National Cotton Germplasm Collection**  
**James Frelichowski**<sup>1</sup>, Janna Love<sup>1</sup>, Lori Hinze<sup>1</sup>, Don C Jones<sup>2</sup>, Jodi Scheffler<sup>3</sup> and Joshua A. Udall<sup>1</sup>, (1)USDA-ARS, College Station, TX, (2)Cotton Incorporated, Cary, NC, (3)USDA ARS, Stoneville, MS
76. **CottonGen: A Central Data Repository and Analysis Resource for the Cotton Community**  
**Jing Yu**, Washington State University, Pullman, WA

## **Cotton Insect Research and Control Conference Posters**

77. **Impact of Aglogic and Thryvon Technology on Tobacco Thrips and Reniform Nematodes**  
**Walker Brett Farmer**<sup>1</sup>, Jeff Gore<sup>2</sup>, Angus Catchot<sup>3</sup>, Whitney Crow<sup>2</sup>, Don Cook<sup>2</sup> and Brian K. Pieralisi<sup>1</sup>, (1)Mississippi State University, Starkville, MS, (2)Mississippi State University, Stoneville, MS, (3)Mississippi State University, Mississippi State, MS
78. **Influence of Chemicals Produced By Entomopathogenic Nematodes on Terpene Aldehyde Production in Cotton**  
**Adriane N Fifield**<sup>1</sup>, Charles P.-C. Suh<sup>2</sup> and Anjel M Helms<sup>1</sup>, (1) Texas A&M University, College Station, TX, (2)USDA-ARS ICCDRU, College Station, TX
79. **Evaluation of Planting Date and a Supplemental Foliar Spray on Thryvon Cotton As a Management Strategy for Tobacco Thrips**  
**Sarah Hobby**, University of Georgia, Tifton, GA
80. **2022 Cotton Insect Losses Estimates**  
**Don Cook**, Mississippi State University, Stoneville, MS

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81. **Thrips Control with in-Furrow and Foliar Insecticides in Arkansas Cotton**  
**Matthew G Mann**, University of Arkansas, Jonesboro, AR and Glenn Studebaker, University of Arkansas, Keiser, AR
82. **Assessment of Droplet Size, Swath Width, and *Anthonomus grandis* Mortality Using Drone Applications of Malathion® in Brazil**  
**Destiny West**, Perfect Flight, Ames, IA
83. **Observing Seasonal Dynamics of Aphids Infesting Cotton and the Spread of Cotton Leafroll Dwarf Virus Spread in Alabama**  
**Jessica B Mahas**<sup>1</sup>, John W. Mahas<sup>1</sup>, Charles Ray<sup>2</sup>, Adam Kesheimer<sup>1</sup>, Kassie Conner<sup>1</sup> and Alana Lynn Jacobson<sup>1</sup>, (1)Auburn University, Auburn, AL, (2)Mississippi State, Mississippi State, MS
84. **Management of Aphids and Whiteflies with Insecticides in California Cotton: Evaluating Influence of Coverage on Efficacy**  
**Ian M Grettenberger**, University of California-Davis, Davis, CA, CA, Buddhi Achhami, University of California, Davis, Davis, CA and Treanna Pierce, University of California, Davis, Five Points, CA
85. **Large Plot Evaluation of Susceptibility to Tarnished Plant Bug in Cotton Cultivars Exhibiting Resistance Small Plots**  
**Glenn Studebaker**, University of Arkansas, Keiser, AR and Matthew G Mann, University of Arkansas, Jonesboro, AR
86. **Interaction of N-Fertilizer Rates and Insecticide Termination Timing for Tarnished Plant Bug in NE Arkansas Cotton Grown in Rotation with Peanut**  
**Tina Gray Teague**, Ark State Univ / Univ Ark Sys Div of Ag, State University, AR, N. Ray Benson, University of Arkansas System Division of Agriculture, State University, AR and John W. Nowlin, Arkansas State University, State University, AR

## **Cotton Weed Science Research Conference Posters**

87. **Herbicide-Resistant Italian Ryegrass in Arkansas**  
**Lou Adams**<sup>1</sup>, Tom Barber<sup>2</sup>, Jason K Norsworthy<sup>1</sup> and Thomas R Butts<sup>3</sup>, (1)University of Arkansas, Fayetteville, AR, (2)University of Arkansas-Extension, Lonoke, AR, (3)University of Arkansas, Lonoke, AR
88. **Evaluation of Cotton Tolerance and Palmer Amaranth Residual Control with Loyant Coated Fertilizer Applied at Different Growth Stages**  
**Summer L Pritchett**<sup>1</sup>, Jason K Norsworthy<sup>2</sup>, David Smith<sup>2</sup>, Ty C Smith<sup>2</sup>, Tristen A Avent<sup>1</sup> and Lon Tom Barber<sup>3</sup>, (1)University of Arkansas Crop, Soil, and Environmental Science Weed Science Program, Fayetteville, AR, (2)University of Arkansas, Fayetteville, AR, (3)Director Newport Extension Center, (CES)-Cooperative Extension Service, Lonoke, AR

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89. **Glufosinate Mixed with Glutathione S-Transferase Inhibitors or Saflufenacil: Impact on Weed Control and Cotton Injury**  
**Pamela Carvalho-Moore<sup>1</sup>**, Jason K Norsworthy<sup>1</sup>, Leonard B Piveta<sup>1</sup>, Tanner A King<sup>1</sup>, Matthew C Woolard<sup>1</sup>, Mason Castner<sup>1</sup> and Lon Tom Barber<sup>2</sup>, (1)University of Arkansas, Fayetteville, AR, (2) Director Newport Extension Center, (CES)-Cooperative Extension Service, Lonoke, AR
90. **Confirmation of 2,4-D-Resistant Palmer Amaranth in Arkansas and Sensitivity to Postemergence-Applied Cotton Herbicides**  
**Maria Carolina Souza<sup>1</sup>**, Jason K Norsworthy<sup>1</sup>, Pamela Carvalho-Moore<sup>1</sup>, Christian Thomas Arnold<sup>1</sup>, Lon Tom Barber<sup>2</sup> and Thomas R Butts<sup>3</sup>, (1)University of Arkansas, Fayetteville, AR, (2)Director Newport Extension Center, (CES)-Cooperative Extension Service, Lonoke, AR, (3)University of Arkansas, Lonoke, AR
91. **Cover Crop Residue Effects on the Germination of Troublesome Cotton Weeds**  
**Annu Kumari<sup>1</sup>**, Andrew J. Price<sup>2</sup>, Steve Li<sup>1</sup> and Audrey V. Gamble<sup>1</sup>, (1)Auburn University, Auburn, AL, (2)USDA, Auburn, AL
92. **Longevity of a Moldboard Plow Tillage Event in Cotton: Impact on Palmer Amaranth over Four Years**  
**Ty C Smith<sup>1</sup>**, Jason K Norsworthy<sup>1</sup>, Tom Barber<sup>2</sup>, Matthew C Woolard<sup>1</sup>, Leonard B Piveta<sup>1</sup> and Rodger B. Farr<sup>3</sup>, (1)University of Arkansas, Fayetteville, AR, (2)University of Arkansas-Extension, Lonoke, AR, (3)Bayer Crop Science, Wellfleet, NE
93. **Comparison of Broadcast vs See & Spray Programs™ in Xtendflex Cotton**  
**Tristen A Avent<sup>1</sup>**, Jason K Norsworthy<sup>2</sup>, Mason Castner<sup>2</sup>, William Patzoldt<sup>3</sup>, Lauren M Schwartz-Lazaro<sup>3</sup>, Michael M Houston<sup>4</sup>, Wesley Everman<sup>5</sup> and Diego J Contreras<sup>5</sup>, (1)University of Arkansas Crop, Soil, and Environmental Science Weed Science Program, Fayetteville, AR, (2)University of Arkansas, Fayetteville, AR, (3)Blue River Technology, Sunnyvale, CA, (4)Blue River Technology, Greenville, MS, (5)North Carolina State University, Raleigh, NC
94. **Cotton Response to Low Concentrations of Diflufenican in Soil**  
**Matthew C Woolard<sup>1</sup>**, Jason K Norsworthy<sup>1</sup>, Casey H Arnold<sup>1</sup>, Tanner A King<sup>1</sup> and Lon Tom Barber<sup>2</sup>, (1)University of Arkansas, Fayetteville, AR, (2)Director Newport Extension Center, (CES)-Cooperative Extension Service, Lonoke, AR
95. **Evaluation of Weed Seed Retention in Cotton Harvesters**  
**Sarah A Chu<sup>1</sup>**, Benjamin M. McKnight<sup>2</sup>, Gaylon Morgan<sup>3</sup>, Michael Walsh<sup>4</sup> and Muthu Bagavathiannan<sup>1</sup>, (1)Texas A&M University, College Station, TX, (2)Texas A&M AgriLife Extension Service, College Station, TX, (3)Cotton Incorporated, Cary, NC, (4)The University of Western Australia, Perth, Australia
96. **Preemergence Herbicide Programs for Extended Residual Weed Control**  
**Noah H Reed**, University of Arkansas Fayetteville, Fayetteville, AR, Lon Tom Barber, Director Newport Extension Center, (CES)-Cooperative Extension Service, Lonoke, AR, Jason K Norsworthy, University of Arkansas, Fayetteville, AR and Thomas R Butts, University of Arkansas, Lonoke, AR



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97. **Palmer Amaranth Control Options in the Absence of Dicamba**  
**Tyler S Soignier<sup>1</sup>**, Brian K. Pieralisi<sup>1</sup>, Darrin M. Dodds<sup>2</sup>, Jason Krutz<sup>3</sup>, Dave Spencer<sup>2</sup>, Whitney Crow<sup>3</sup>, William Joseph Rutland<sup>1</sup>, Eli B. Hobbs<sup>1</sup> and Bradley Norris<sup>2</sup>, (1)Mississippi State University, Starkville, MS, (2)Mississippi State University, Mississippi State, MS, (3)Mississippi State University, Stoneville, MS
98. **Suspected Glyphosate Resistant Johnson Grass Found in Texas**  
**Ryan Allen Matschek**, Texas A&M AgriLife Extension Service, San Angelo, TX, Reagan L. Noland, Texas A&M Agrilife Extension Service, San Angelo, TX and Muthu Bagavathiannan, Texas A&M University, College Station, TX
99. **Site-Specific Treatment of Late-Season Weed Escapes in Cotton Using a Remotely Piloted Aerial Application System**  
**Ubaldo Torres<sup>1</sup>**, Daniel E Martin<sup>2</sup>, Bishwa Sapkota<sup>1</sup>, Bholum Gurjar<sup>1</sup>, Matthew Kutugata<sup>1</sup> and Muthukumar V Bagavathiannan<sup>1</sup>, (1)Texas A&M University, College Station, TX, (2)USDA-ARS, College Station, TX
100. **Influence of Seed Size on Cotton Injury from Soil Applied Herbicides at Planting**  
**Sarah K. Holladay<sup>1</sup>**, Mike Marshall<sup>2</sup>, Michael A. Jones<sup>1</sup> and Michael T. Plumblee<sup>2</sup>, (1)Clemson University, Florence, SC, (2) Clemson University, Blackville, SC
101. **Impact of Preemergence Herbicide Rate on Palmer Amaranth Control and Injury to Cotton**  
**Mason Castner<sup>1</sup>**, Jason K Norsworthy<sup>1</sup>, Casey H Arnold<sup>1</sup> and Tom Barber<sup>2</sup>, (1)University of Arkansas, Fayetteville, AR, (2)University of Arkansas-Extension, Lonoke, AR
102. **Isoxaflutole Tank Mixtures Efficacy on Volunteer Peanut and Weed Control**  
**Livia Ianhez Pereira**, Steve Li, Ryan Langemeier and Justin McCaghren, Auburn University, Auburn, AL
103. **Prickly Sida Control in Cotton**  
**Julie L Reeves** and Larry E Steckel, University of Tennessee, Jackson, TN
104. **Cotton Response to Reduced Rates of Reviton**  
**Donnie K. Miller<sup>1</sup>**, Tom Barber<sup>2</sup>, Jason A. Bond<sup>3</sup>, Daniel O Stephenson IV<sup>4</sup> and Ashley M Barfield<sup>1</sup>, (1)LSU Ag Center, St. Joseph, LA, (2)University of Arkansas-Extension, Lonoke, AR, (3) Mississippi State, Stoneville, MS, (4)LSU AgCenter, Alexandria, LA
105. **Palmer Amaranth (*Amaranthus palmeri*) Seedbank Management through Light Quality Manipulation**  
**Sarah E. Kezar**, Shuyang Zhen and Muthukumar V Bagavathiannan, Texas A&M University, College Station, TX

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106. **Comparison of Alite 27 Residual Tankmix Combinations**  
**Jennifer Dudak**<sup>1</sup>, Zachary R. Treadway<sup>1</sup>, Todd A Baughman<sup>1</sup>, Gregory B. Baldwin<sup>2</sup>, Tom Barber<sup>3</sup>, Jason A. Bond<sup>4</sup>, Charlie Cahoon<sup>5</sup>, A. Stanley Culpepper<sup>6</sup>, Peter A. Dotray<sup>7</sup>, Adam C. Hixson<sup>8</sup>, J. Wayne Keeling<sup>9</sup>, Steve Li<sup>10</sup>, Michael W. Marshall<sup>11</sup>, Reagan L. Noland<sup>12</sup>, Scott Nolte<sup>13</sup>, Larry E Steckel<sup>14</sup>, Daniel O Stephenson IV<sup>15</sup> and Maxwell E. Smith<sup>16</sup>, (1)Oklahoma State University, Ardmore, OK, (2)BASF, Durham, NC, (3)University of Arkansas-Extension, Lonoke, AR, (4)Mississippi State, Stoneville, MS, (5)North Carolina State University, Raleigh, NC, (6)University of Georgia, Tifton, GA, (7)Texas A&M AgriLife Research and Extension Service, Lubbock, TX, (8)BASF, Lubbock, TX, (9)Texas A&M AgriLife Research Center, Lubbock, TX, (10) Auburn University, Auburn, AL, (11)Clemson University - Edisto REC, Blackville, SC, (12)Texas A&M Agrilife Extension Service, San Angelo, TX, (13)Texas A&M University, College Station, TX, (14)University of Tennessee, Jackson, TN, (15)LSU AgCenter, Alexandria, LA, (16)Texas Tech University, Lubbock, TX
107. **Weed Management Programs in Stoneville Cotton (ST 4550) for Long-Term Glyphosate-Resistant Palmer Amaranth Control**  
**Taghi Bararpour**, Mississippi State University, Stoneville, MS
108. **Residual Activity of Direx, Caparol, Cotoran, Brake, Staple, Dual Magnum, Prowl, and Warrant on Glyphosate-Resistant Palmer Amaranth Control**  
**Taghi Bararpour**, Mississippi State University, Stoneville, MS
109. **Glyphosate-Resistant Palmer Amaranth Control in Enlist Cotton**  
**Taghi Bararpour**, Mississippi State University, Stoneville, MS
110. **Influence of a Cereal Rye Cover Crop and Conservation Tillage on the Critical Weed Free Period in Cotton**  
**Andrew J. Price**<sup>1</sup>, Nicholas E. Korres<sup>2</sup>, Jason K Norsworthy<sup>2</sup> and Steve Li<sup>3</sup> (1)USDA-ARS, National Soil Dynamics Unit, Auburn, AL, (2)University of Arkansas, Fayetteville, AR, (3)Auburn University, Auburn, AL

## **Sustainability Posters**

111. **Impact of Annual and Occasional Tillage on Cotton Growth and Development Relative to a No-till Control**  
**Patricia de Sousa Soares**<sup>1</sup>, Lori Duncan<sup>2</sup>, Samuel Reeves<sup>1</sup>, Matthew Davis<sup>1</sup> and Tyson B Raper<sup>1</sup>, (1)University of Tennessee, Jackson, TN, (2)University of Tennessee, Knoxville, TN
112. **Sheep As a Potential Tool for in-Season Weed Control in Cotton**  
**Matthew Stewart**, Texas A&M University, College Station, TX, Reagan L. Noland, Texas A&M Agrilife Extension Service, San Angelo, TX, Benjamin M. McKnight, Texas A&M AgriLife Extension Service, College Station, TX and Reid Redden, Texas A&M University, San Angelo, TX
113. **Implementation of Heavy Cover Crop to Increase on-Farm Sustainability**  
**Mary Logan Tostenson**<sup>1</sup>, Wesley M Porter<sup>1</sup>, Seth Thomas McAllister<sup>2</sup> and Kaylyn Reagin<sup>1</sup>, (1)University of Georgia, Tifton, GA, (2)University of Georgia Cooperative Extension, Dawson, GA

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114. **Comparing Profitability of Single Specie Vs. Multi-Specie Cover Crops in South Georgia**  
**Kelvin Kwadjo Bobbie**, Department of Agricultural and Applied Economics, University of Georgia, Athens, GA, Seth Thomas McAllister, University of Georgia Cooperative Extension, Dawson, GA, Amanda R Smith, Extension Economists, Department of Agricultural & Applied Economics, Tifton, GA and Yangxuan Liu, University of Georgia, Tifton, GA
115. **Highly Hazardous Pesticide Phase-out for US Cotton Growers: Alternatives, Risks, and Opportunities**  
**Karen Wynne**, Better Cotton Initiative, Huntsville, AL, Alfred J Fournier, University of Arizona, Tucson, AZ and Peter C Ellsworth, University of Arizona, Maricopa, AZ
116. **Better Cotton - Six Years of Grower-Reported Production and Practice Data**  
Miguel Gomez-Escolar, Better Cotton Initiative, Geneva, Switzerland and **Karen Wynne**, Better Cotton Initiative, Huntsville, AL
117. **Increasing Profitability By Reducing Input Costs Facilitated By Improving Soil Health**  
**Bill Robertson**, Joe McAlee, Colton Henderson and Darlene Madden, University of Arkansas System Division of Ag, Newport, AR
118. **Cotton Research Verification Sustainability Program Update**  
Bill Robertson<sup>1</sup>, **Joe McAlee**<sup>1</sup>, Breana Watkins<sup>2</sup> and Darlene Madden<sup>1</sup>, (1)University of Arkansas System Division of Ag, Newport, AR, (2)University of Arkansas System Division of Ag, Little Rock, AR
119. **Improving Sustainability: Program to Demonstrate Implementation and Benefits of the U.S. Cotton Trust Protocol and Better Cotton Initiative Better Cotton Program**  
**Bill Robertson**<sup>1</sup>, Joe McAlee<sup>1</sup>, Colton Henderson<sup>1</sup>, Karen Wynne<sup>2</sup>, Andrew Jordan<sup>3</sup>, Jesse Daystar<sup>4</sup>, Bruce Kirksey<sup>5</sup> and Darlene Madden<sup>1</sup>, (1)University of Arkansas System Division of Ag, Newport, AR, (2)Better Cotton Initiative, Huntsville, AL, (3) Jordan Associates Ag and Bio Engineering Services, Cordova, TN, (4)Cotton Incorporated, Cary, NC, (5)Agricenter International, Memphis, TN
120. **Developing Improved Nitrogen Recommendations for Florida Cotton Growers**  
**Libbie Johnson**, University of Florida Santa Rosa County, Jay, FL, Ethan Carter, University of Florida Jackson County, Marianna, FL, Joseph Iboyi, UFL, Jay, FL, Hardeep Singh, University of Florida, Jay, FL and Lakesh Sharma, UFL, Gainesville, FL

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121. **Promoting Irrigation Efficiency and Educational Opportunities through the UGA AgWET Program**  
**Jason E. Mallard**<sup>1</sup>, Blake Carter<sup>2</sup>, Jackson C. Cloud<sup>3</sup>, Scout Carter<sup>4</sup>, Sydni C. Ingram<sup>5</sup>, David Hall<sup>6</sup>, James Joyce<sup>7</sup>, Madison Warbington<sup>8</sup>, Seth Thomas McAllister<sup>9</sup>, Colton Scott Moon<sup>6</sup>, Jay Porter<sup>10</sup>, Peyton Sapp<sup>11</sup>, Justin Shealey<sup>12</sup>, Aubry Shirley<sup>13</sup>, Ashley Smith<sup>14</sup>, Savannah Tanner<sup>15</sup>, William G. Tyson<sup>16</sup> and Wesley M Porter<sup>17</sup>, (1)University of Georgia Extension, Statesboro, GA, (2) University of Georgia Cooperative Extension Service, Springfield, GA, (3)University of Georgia Cooperative Extension, Cairo, GA, (4)University of Georgia Extension, Waycross, GA, (5)University of Georgia, Thomasville, GA, (6)UGA Extension, Cochran, GA, (7) UGA Extension, Dublin, GA, (8)UGA Extension, Oglethorpe, GA, (9)University of Georgia Cooperative Extension, Dawson, GA, (10) University of Georgia, Hawkinsville, GA, (11)University of Georgia Cooperative Extension, Waynesboro, GA, (12)UGA Extension, Statenville, GA, (13)University of Georgia, Reidsville, GA, (14) University of Georgia, Douglas, GA, (15)University of Georgia, Swainsboro, GA, (16)University of Georgia Cooperative Extension, Statesboro, GA, (17)University of Georgia, Tifton, GA

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The Beltwide Cotton Conferences (BWCC) continue the tradition of putting leading edge information and innovations into attendees' hands to help with decision-making. The full 2023 BWCC Proceedings are scheduled to be mailed in May to attendees who purchase them. However, many of the forum's reports—gleaned from the Confex Podium presentation management/ recording service—are available online.\*

The National Cotton Council is pleased to make these presentations available to the cotton industry through the Confex Podium web site. To view presentations on the computer, all that is needed is a high-speed Internet connection.

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## Wi-Fi

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# Notes

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# Notes

An aerial, black and white photograph of Fort Worth, Texas. The image shows a dense urban landscape with a prominent skyline of skyscrapers in the background. In the foreground, a complex highway interchange with multiple overpasses and ramps is visible, surrounded by green spaces and trees. The overall scene is captured from a high angle, looking down on the city.

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