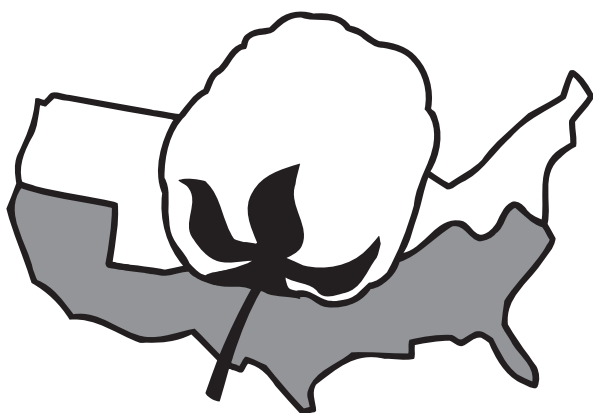


# Beltwide Cotton Conferences



**January 8-10, 2020  
JW Marriott Austin Hotel  
Austin, Texas**

**National  
Cotton  
Council**   
OF AMERICA

# Schedule of Events

Wednesday, January 8, 2020		
7:00a- 10:00p	Speaker Practice Room	Room 502
7:30a- 1:00p	Extension Cotton Specialist Meeting (By Invitation Only)	Room 402-403
8:30a- 12:30p	USDA-ARS Cotton Researchers Meeting (By Invitation Only)	Room 503
9:00a- 5:00p	Conference Registration (Sponsored by Bayer)	JW Grand Ballroom Foyer
9:00a- 5:00p	Newsroom	Room 210
9:00a- 5:00p	Confex Presentation Uploading Room for Speakers	Room 404
11:00a- 1:30p	NCGA Safety Specialist Forum (By Invitation Only)	Room 406
11:00a- 12:00p	Consultants Conference Luncheon	Room 408-409
12:00p- 5:15p	Consultants Conference General Session	JW Grand Salon 3-4
12:00p-5:00p	Precision Cotton Researchers Working Group (By Invitation Only)	Room 211-212
1:30p- 3:00p	NCGA Safety and Labor Committee	JW Grand Salon 1-2
2:00p-3:20p	National Cotton Variety Testing Panel Meeting (By Invitation Only)	Room 402-403
3:00p- 3:30p	Coffee Break (Sponsored by Bayer)	JW Grand Ballroom Foyer
3:15p- 4:45p	NCGA Technology Com. – Air Quality Subcommittee	JW Grand Salon 1-2
3:30p-4:15p	National Cotton Variety Testing Committee Meeting (By Invitation Only)	Room 402-403
4:30p- 5:30p	Cotton Germplasm Committee	Room 402-403
5:30p-6:00p	Regional Breeders Testing Network	Room 402-403
6:00p- 7:00p	Welcome Reception for All Attendees	JW Grand Salon 5-6

The contents of this booklet are current as of December 14, 2019. Changes to the Schedule of Events, BWCC Technical Conferences sessions or other BWCC activities that occurred after the booklet was printed can be found on the BWCC website, <http://www.cotton.org/belt-wide/index.cfm>, or by using one of the BWCC scheduling tools referenced on page five of this booklet.

# Schedule of Events

<b>Thursday, January 9, 2020</b>		
7:30a- 8:00a	Coffee Break (Sponsored by Bayer)	JW Grand Ballroom Foyer
7:30a- 5:00p	Speaker Practice Room	Room 502
7:30a- 5:00p	Conference Registration (Sponsored by Bayer)	JW Grand Ballroom Foyer
7:30a- 5:00p	Newsroom	Room 210
7:30a- 5:00p	Confex Presentation Uploading Room for Speakers	Room 404
8:00a- 9:00a	Cotton Agronomy, Physiology & Soils Conference – MS Student Competition	JW Grand Salon 2
8:00a- 11:00a	NCGA Technology Committee	Room 402-403
8:00a- 12:00p	Cotton Sustainability	JW Grand Salon 4
8:00a- 12:00p	Cotton Leafroll Dwarf Virus Joint Session	Brazos Room
8:00a- 5:00p	Cotton Agronomy, Physiology & Soils Conference	JW Grand Salon 5
8:00a- 10:00p	Technical Conferences Poster Board Session	JW Grand Salon 7 & 8
8:10a- 3:00p	Cotton Weed Science Research Conference	Room 408-409
10:00a- 10:30a	Coffee Break (Sponsored by Bayer)	JW Grand Ballroom Foyer
10:30a- 12:00p	Cotton Economic Outlook Symposium	JW Grand Salon 3
10:30a- 12:00p	Cotton Utilization Conference	Room 406
1:00p- 2:45p	Cotton Agronomy, Physiology & Soils Conference – PhD Student Competition	JW Grand Salon 2
1:00p - 5:00p	Cotton Engineering-Systems Conference	Room 401
1:00p- 5:30p	Cotton Disease Council	Room 211-212
1:15p– 4:30p	Cotton Improvement Conference	Brazos Room
1:15p- 3:15p	Cotton Insect Research & Control Conference- PhD Student Paper Competition	JW Grand Salon 1
1:15p- 5:30p	Cotton Insect Research & Control Conference- MS Student Paper Competition	JW Grand Salon 6
1:30p – 6:00p	Cotton Ginning Conference	JW Grand Salon 3
1:30p- 5:00p	Cotton Economics and Marketing Conference	JW Grand Salon 4
3:15p- 4:00p	Coffee Break in Poster Board Session Room (authors present)	JW Grand Salon 7 & 8
3:30p- 5:30p	Cotton Insect Research & Control Conference- Session B	JW Grand Salon 1
3:30p- 5:00p	Cotton Quality Measurements Conference	Room 406

# Schedule of Events

<b>Thursday, January 9, 2020</b>		
4:00p- 5:00p	Cotton Agronomy, Physiology & Soils Conference – PhD Student Competition	JW Grand Salon 2
5:15p- 7:00p	Cotton Agronomy & Physiology Business Meeting	JW Grand Salon 5
5:30p- 7:00p	Cotton Insect Research & Control Business Meeting and Mixer (Sponsor: Bayer, Ty Fowler)	JW Grand Salon 6
5:45p- 7:00p	Cotton Disease Council Business Meeting	Room 211-212
6:00p- 7:00p	Cotton Industry Support Group Meeting	JW Grand Salon 3
6:00p- 7:00p	Journal of Cotton Science Editorial Board	Room 402
7:00p- 9:00p	Joint Cotton Breeding Committee	Room 403
<b>Friday, January 10, 2020</b>		
7:00a- 12:00p	Available Room	Room 503
7:00a- 12:00p	Speaker Practice Room	Room 502
7:30a- 8:00a	Coffee Break (Sponsored by Bayer)	JW Grand Ballroom Foyer
7:30a- 12:00p	Confex Presentation Uploading Room (CLOSED; speakers to go to meeting room to upload)	Room 404
7:30a- 1:00p	Conference Registration (Sponsored by Bayer)	JW Grand Ballroom Foyer
7:30a- 1:00p	Newsroom	Room 210
8:00a- 9:30a	Cotton Engineering Systems Conference	Room 401
8:00a- 10:30a	Cotton Insect Research & Control Conf. – Session A	JW Grand Salon 6
8:00a- 10:30a	Cotton Insect Research & Control Conf. – Session B	JW Grand Salon 1
8:00a- 11:00a	Cotton Ginning Conference	JW Grand Salon 3
8:00a- 11:50a	Cotton Improvement Conference 11:50a- 12:00p – Business Meeting	Brazos Room
8:00a- 12:00p	Technical Conferences Poster Board Session	JW Grand Salon 7 & 8
8:00a- 12:00p	Cotton Disease Council	Room 211-212
9:00a- 10:00a	Cotton Agronomy, Physiology & Soils Conference- Session A	JW Grand Salon 5
10:00a- 10:30a	Cotton Weed Science Research- Graduate Student Awards	Room 402-403
10:00a- 10:30a	Coffee Break (Sponsored by Bayer)	JW Grand Ballroom Foyer
10:30a- 12:00p	Cotton Agronomy, Physiology & Soils Conference- Awards Session	JW Grand Salon 5

# Mobile Access/ Online Scheduler



To help with event planning and scheduling, Beltwide Cotton Conferences (BWCC) attendees are invited to use the BoardBookIt App, an online scheduler that provides easy access to meeting materials, including meeting schedules, hotel maps and meeting reminders.

BWCC registrants should have received a welcome email from BoardBookIt that includes a temporary link to set up login credentials. If you downloaded BoardBookIt for previous NCC meetings, you do not have to download it again or create login credentials. Just login to access the Beltwide Meeting materials.

To receive a temporary link to set up login credentials, please contact NCC's Jana Jackins at [jjackins@cotton.org](mailto:jjackins@cotton.org) or 901-274-9030. Those who have not received the welcome email are advised to check their SPAM/Junk in case the email was routed into those folders.

Once the invitation email has been received, BoardBookIt may be accessed via iPad, iPhone app, Android app or web browser by visiting either the Apple store, Google Play or Amazon to download the BoardBookIt app.

## Wi-Fi

**Wi-Fi Address:** JWMarriott\_Conference

**Wi-Fi Password:** beltwide2020

# 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.

<b>Accrediting Group or State</b>
<p><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</p>
<p><b>Alabama</b> Department of Agriculture &amp; 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</p>
<p><b>Arizona</b> Department of Agriculture, Office of Pest Management;            1688 West Adams, Phoenix, AZ 85007;            Phone: 602-255-3662; Email: rwalker@azda.gov</p>
<p><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</p>
<p><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</p>
<p><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</p>
<p><b>Louisiana</b> Department of Agriculture &amp; Forestry, Office of Agricultural &amp;            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</p>
<p><b>Mississippi</b> Department of Agriculture &amp; 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</p>
<p><b>New Mexico</b> Department of Agriculture, Cert. &amp; 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</p>
<p><b>North Carolina</b> Pesticide Section, NCDA &amp; CS;            1090 Mail Service Center, Raleigh, NC 27699-1090;            Phone: 919-857-4133; FAX: 919-733-9796;            Email: John.Feagans@ncagr.gov</p>

**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

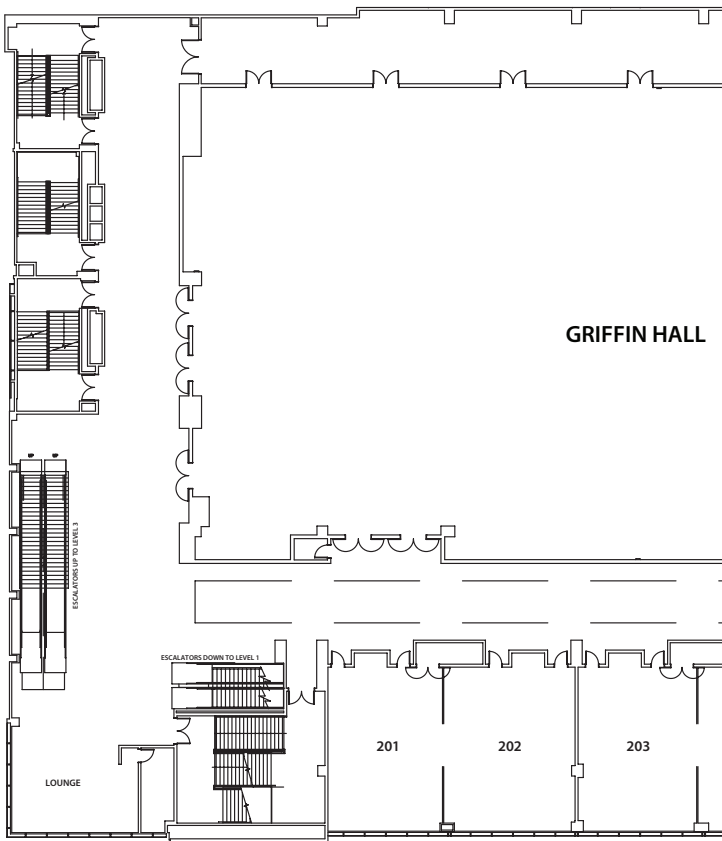
**South Carolina** Special Programs Manager/Recertification Manager  
Department of Pesticide Regulation  
Division of Regulatory & Public Service Programs  
511 Westinghouse Road, Pendleton, SC 29670;  
Phone: 864-646-2150; Fax: 864-646-2179;  
Email: thghslr@clemson.edu

**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;  
Phone: 512-463-8713

# JW Marriott Austin Hotel Meeting Room Floor Plans

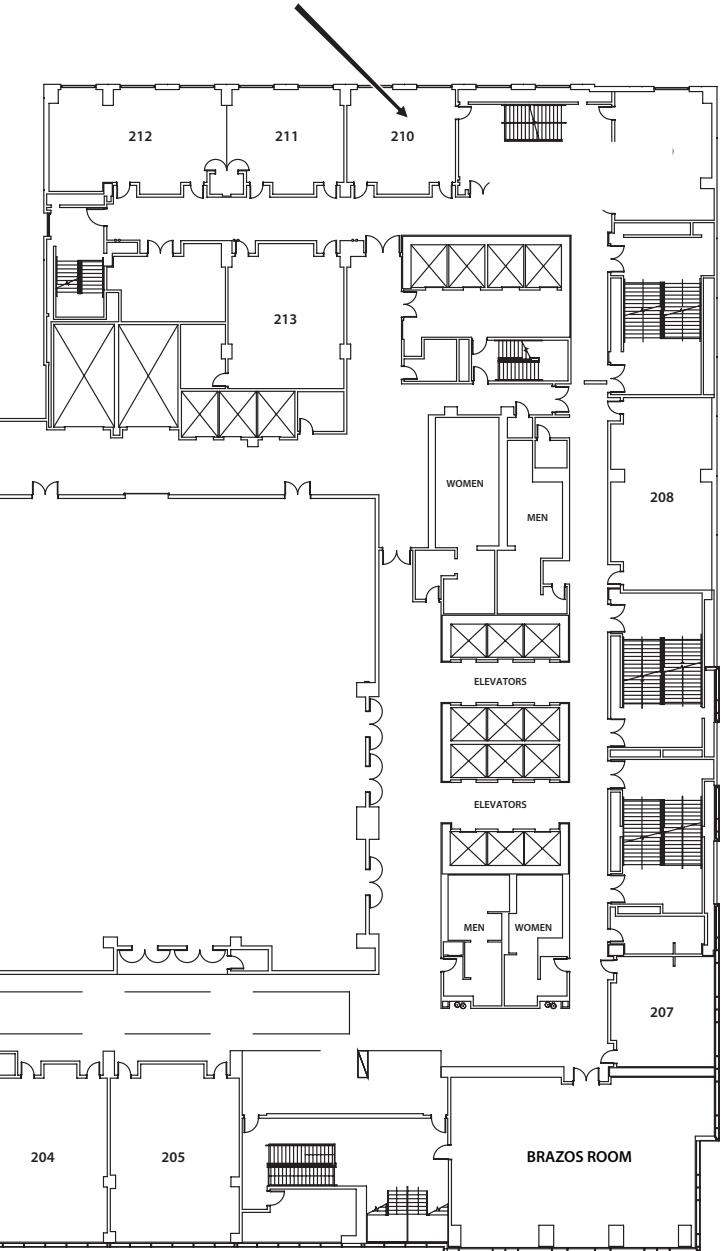
## LEVEL 2





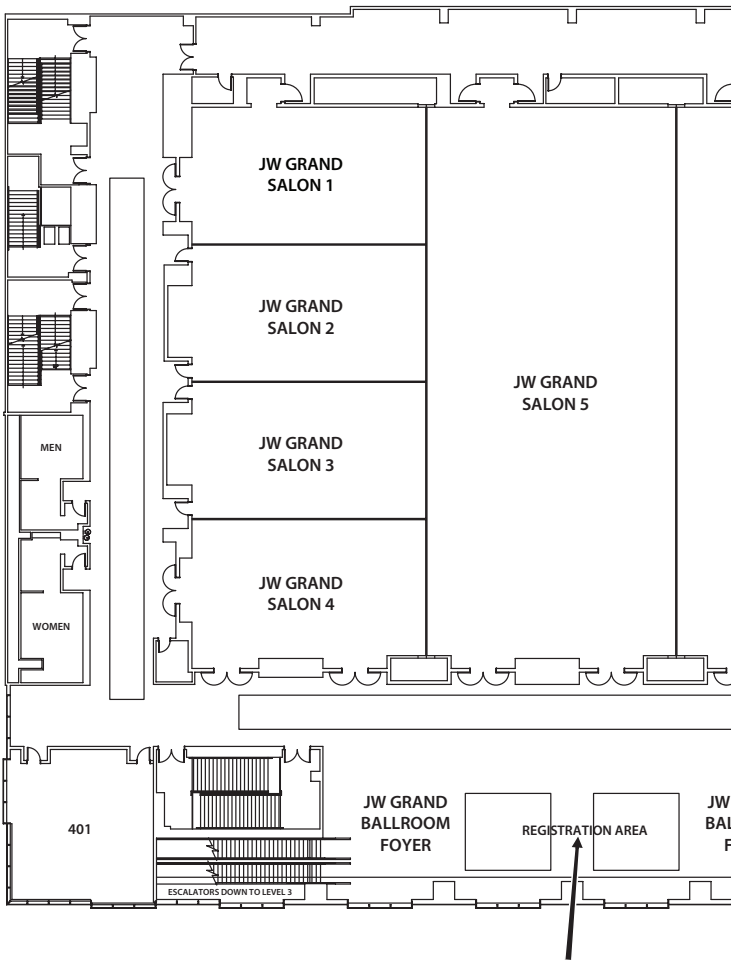
# JW Marriott Austin Hotel Meeting Room Floor Plans

News Room



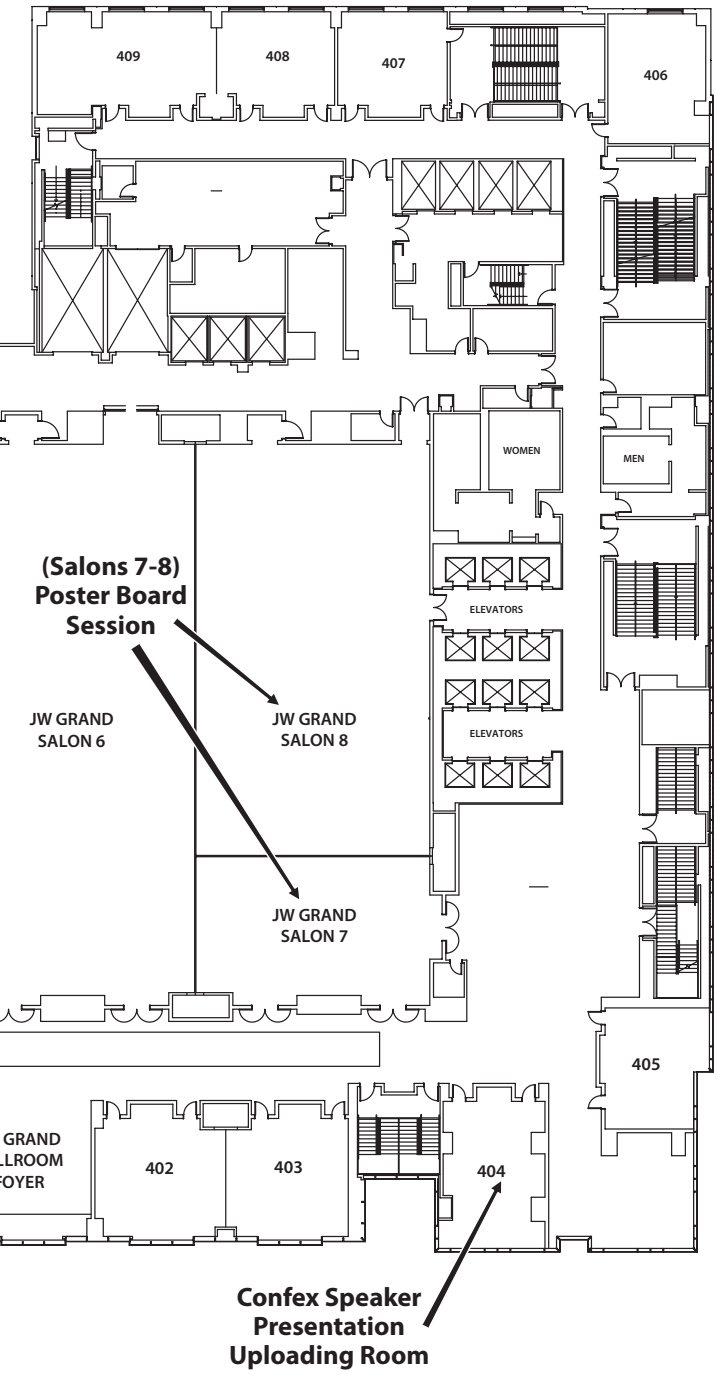
# JW Marriott Austin Hotel Meeting Room Floor Plans

## LEVEL 4



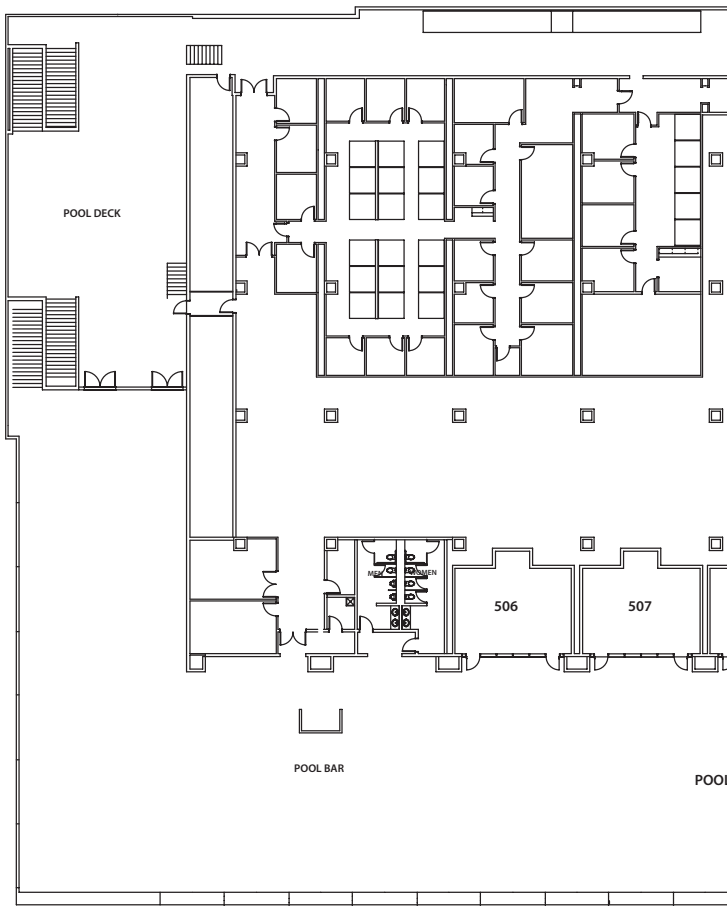
- Beltwide Registration
- Wi-Fi

# JW Marriott Austin Hotel Meeting Room Floor Plans



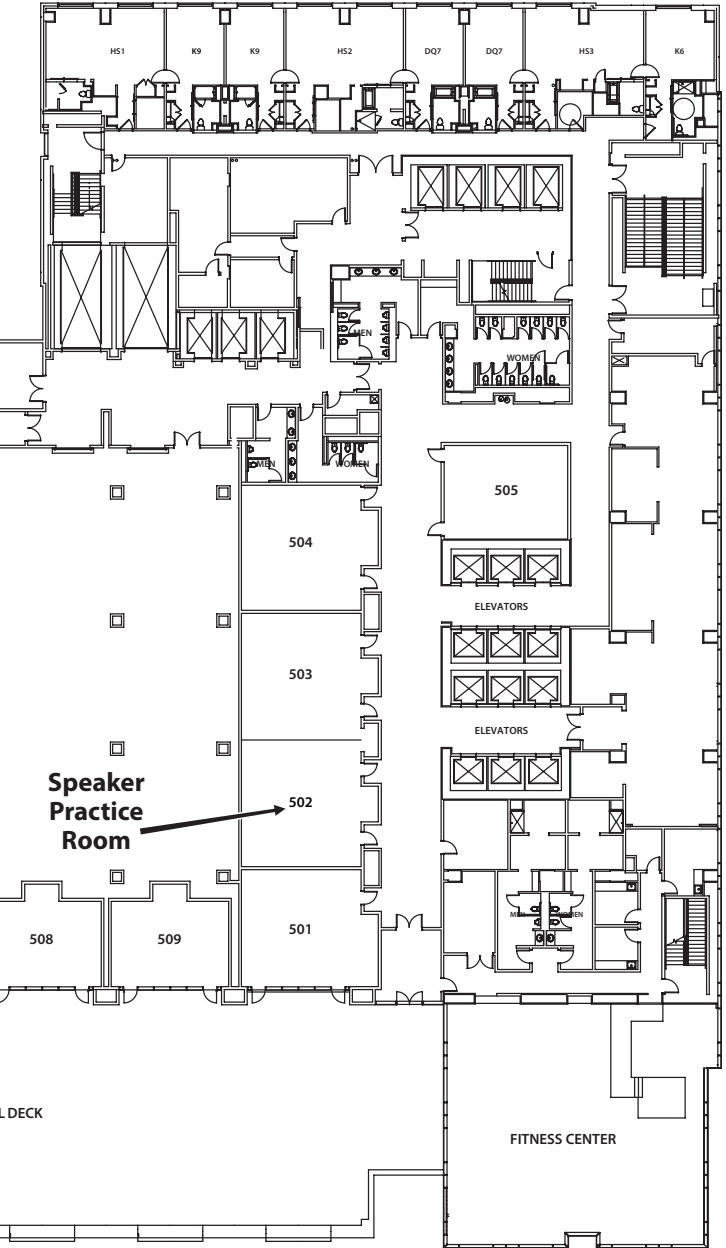
# JW Marriott Austin Hotel Meeting Room Floor Plans

## LEVEL 5



# JW Marriott Austin Hotel

## Meeting Room Floor Plans



Wednesday, January 8, 2020

# Cotton Consultants Conference

## CONSULTANTS CONFERENCE GENERAL SESSION

*JW Grand Salons 3-4, 12:00 PM-5:15 PM*

**12:00 PM Introduction and Acknowledgements**

**Hank Jones**, Chairman Consultants Conference, Winnsboro, LA

**12:05 PM Bayer**

**12:10 PM Phytogen**

**12:15 PM FMC**

**12:20 PM Syngenta**

**12:25 PM BASF**

**12:30 PM EPA Registration/Registration Review and Comment Process**

**Rick P. Keigwin**, EPA, Washington, DC

**1:00 PM Insect Panel (A)**

**Jeremy Greene**, Clemson University, Blackville, SC

**1:09 PM Insect Panel (B)**

**Ron Smith**, Auburn University, Auburn, AL

**1:18 PM Insect Panel (C)**

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

**1:27 PM Insect Panel (D)**

**Angus Catchot**, Mississippi State University, Mississippi State, MS

**1:36 PM Insect Panel (E)**

**Sebe Brown**, LSU AgCenter, Winnsboro, LA

**1:45 PM Disease Panel - Nematodes**

**Travis R. Faske**, University of Arkansas Division of Agriculture, Lonoke, AR

**2:00 PM Disease Panel - Target Spot**

**Paul Price**, Louisiana State University, Winnsboro, LA

**2:15 PM Disease Panel - CLRDV**

**Kathy Lawrence**, Auburn University, Auburn, AL

**2:30 PM U.S. Cotton Trust Protocol Pilot**

**Ken Burton**, National Cotton Council, Cordova, TN

**2:45 PM Cotton Contamination Education**

**Bill Norman**, National Cotton Council, Cordova, TN

**3:00 PM Break**

**3:15 PM Multi-State Potash Study**

**Katie L. Lewis**, Texas A&M AgriLife Research and Extension Center, Lubbock, TX

**3:45 PM Breeding Program Panel: Decisions in Selection of Varieties (A)**

**Terry Campbell**, Americot, Lubbock, TX

**3:56 PM Breeding Program Panel: Decisions in Selection of Varieties (B)**

**David W Albers**, Bayer Crop Science, St. Louis, MO

**4:07 PM Breeding Program Panel: Decisions in Selection of Varieties (C)**

**Joel C Faircloth**, PhytoGen Seed Company, LLC, Clemmons, NC

**4:18 PM Breeding Program Panel: Decisions in Selection of Varieties (D)**  
**Steve Nichols**, BASF, Lubbock, TX

**4:30 PM A Stakeholder Driven Approach to Optimize Modeling and Monitoring of Water Resources in the Mississippi Alluvial Plain**  
**Jeannie Barlow**, USGS Lower Mississippi-Gulf Water Science Center, Jackson, MS

**4:45 PM A Regional Conceptual Model of the Hydrogeologic Framework of a Portion of the Ogallala Aquifer**  
**Jonathan V Thomas**, USGS - North Texas Program, Fort Worth, TX

**5:00 PM Concluding Remarks**

Thursday, January 9, 2020

# Cotton Sustainability

*JW Grand Salon 4, 8:00 AM-12:00 PM*

**8:00 AM Session Overview and Importance of Sustainability for the Cotton Industry**

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

**8:20 AM Aggressive Brand and Retailer Sustainability Targets: How to Position Cotton As Part of a Sustainable Future**

**Jesse Daystar**, Cotton Incorporated, Cary, NC

**9:00 AM US Cotton Trust Protocol: The New Standard in Sustainability**

**Ken Burton**, US Cotton Trust Protocol, Cordova, TN

**10:00 AM Break**

**10:30 AM Panel Discussion: Grower Perspective on the Increasing Sustainability Needs of Brands and Retailers**

**11:15 AM Panel Discussion: Brand Perspectives on the Increasing Sustainability Needs from NGOs and Consumers**

# Cotton Leafroll Dwarf Virus Joint Session

*Brazos, 8:00 AM-12:00 PM*

**8:00 AM Cotton Leafroll Dwarf Virus: 2019 Status of Genomic Variability in Cotton**

**Judith K Brown**, University of Arizona, Tucson, AZ and **Kathy Lawrence**, Auburn University, Auburn, AL

**8:20 AM CLRDV Multi-State Sentinel Plot and Screening Trial Results**

**Marcio Zaccaron**, Jenny Koebernick, Austin Hagan and **Kassie Conner**, Auburn University, Auburn, AL

**8:40 AM Sentinel Plot Cooperators 3 Minute Update**

**8:55 AM Investigating the Impact of Planting Date and Cotton Aphid Management on the Final Incidence of Cotton Leafroll Dwarf Virus.**

**Alana Lynn Jacobson**<sup>1</sup>, Phillip Roberts<sup>2</sup>, Michael Toews<sup>2</sup>, **Kassie Conner**<sup>1</sup>, Sudeep Bag<sup>2</sup>, John Mahas<sup>1</sup> and Adam Kesheimer<sup>1</sup>, (1)Auburn University, Auburn, AL, (2)University of Georgia, Tifton, GA

**9:15 AM Study of Cotton Leafroll Dwarf Virus in Mississippi: State of the Art**

**Nina Aboughanem**<sup>1</sup>, **Thomas W. Allen**<sup>2</sup>, **Tessie H. Wilkerson**<sup>3</sup>, **Jodi Scheffler**<sup>4</sup> and **Sead Sabanadzovic**<sup>1</sup>, (1)Mississippi State University, Mississippi State, MS, (2)Mississippi State University, Delta Research and Extension Center, Stoneville, MS, (3)Mississippi State University, Stoneville, MS, (4)USDA-ARS, Stoneville, MS

**9:35 AM Transmission of Cotton Leafroll Dwarf Virus By Aphis Gossypii**

**Brianna Heilsnis**, **Kassie Conner**, **Jenny Koebernick** and **Alana Lynn Jacobson**, Auburn University, Auburn, AL

**9:50 AM Panel Discussion**

**10:10 AM Break**



**10:25 AM Cotton Leafroll Dwarf Virus: An Emerging Threat to the U.S. Cotton Industry.**

**Sudeep Bag**<sup>1</sup>, Afsha Tabassum<sup>1</sup>, Nabin Sedhain<sup>1</sup>, Jared R. Whitaker<sup>1</sup>, Nelson Dias Suassuna<sup>2</sup>, Kassie Conner<sup>3</sup>, Robert L. Nichols<sup>4</sup>, Robert C. Kemerait<sup>1</sup>, Peng Chee<sup>1</sup> and Phillip Roberts<sup>1</sup>, (1)University of Georgia, Tifton, GA, (2) Brazilian Agricultural Research Corporation - EMBRAPA, Santo Antonio de Goias - GO, Brazil, (3)Auburn University, Auburn, AL, (4)Cotton Incorporated, Cary, NC

**10:45 AM Cotton Aphid Insecticide Efficacy in the Southeast**

**Phillip Roberts**<sup>1</sup>, Michael Toews<sup>1</sup>, Alana L. Jacobson<sup>2</sup>, Ron Smith<sup>2</sup>, Silvana Paula-Moraes<sup>3</sup>, Jeremy Greene<sup>4</sup>, Dominic Reisig<sup>5</sup> and Sally Taylor<sup>6</sup>, (1)University of Georgia, Tifton, GA, (2)Auburn University, Auburn, AL, (3)University of Florida, Jay, FL, (4)Clemson University, Blackville, SC, (5)North Carolina State University, Plymouth, NC, (6)Virginia Tech University, Suffolk, VA

**11:05 AM Blocking Aphid Transmission of Cotton Leafroll Dwarf Virus: A New Approach to Disease Management**

**Michelle L Heck**, USDA ARS, Ithaca, NY and Jennifer Wilson, Cornell University, Ithaca, NY

**11:25 AM Chasing Resistance to Cotton Leafroll Dwarf Virus, Does Mississippi Have a Source?**

**Jodi Scheffler**<sup>1</sup>, Nina Aboughanem<sup>2</sup>, Tessie H. Wilkerson<sup>3</sup>, Thomas W. Allen<sup>4</sup> and Sead Sabanadzovic<sup>2</sup>, (1)USDA-ARS, Stoneville, MS, (2)Mississippi State University, Mississippi State, MS, (3)Mississippi State University, Stoneville, MS, (4)Mississippi State University, Delta Research and Extension Center, Stoneville, MS

**11:45 AM Panel Discussion**

# Cotton Agronomy, Physiology & Soil Conference

COTTON AGRONOMY, PHYSIOLOGY & SOILS -  
THURSDAY EARLY MORNING

*JW Grand Salon 5, 8:00 AM-10:00 AM*

**8:00 AM Cotton Yield and Water Use Response to Variable Irrigation Rate and Timing**

**Kelly R. Thorp**, Alison L. Thompson and Kevin F. Bronson, USDA-ARS, Maricopa, AZ

**8:15 AM Effects of Heat Stress on Cotton Production in the Low Deserts of Arizona**

**Randy Norton**, University of Arizona, Safford, AZ and Blase Evancho, University of Arizona, Casa Grande, AZ

**8:30 AM US Mid-South Cotton Ecosystem Respiration Measurements**

**Michele L. Reba**<sup>1</sup>, Bryant N Fong<sup>1</sup>, Tina Gray Teague<sup>2</sup>, Arlene Adviento-Borbe<sup>1</sup> and Benjamin R. K. Runkle<sup>3</sup>, (1)USDA-ARS, Jonesboro, AR, (2)Ark State Univ / Univ Ark Exp Sta, State University, AR, (3)University of Arkansas, Fayetteville, AR

**8:45 AM Deficit Irrigation Under SDI Versus Furrow Irrigation in the San Joaquin Valley: Pima and Upland Responses**

**Robert B Hutmacher**, University of California West Side REC, Five Points, CA

**9:00 AM Middle Children Are Best: Carbon Dynamics and Boll Distribution**

**Glen Ritchie** and Irish Lorraine B Pabuayan, Texas Tech University, Lubbock, TX

**9:15 AM Water Use, Yield and Fiber Quality Response of Six Upland Cotton Cultivars to Irrigation**

**Robert Schwartz**<sup>1</sup>, Travis Witt<sup>2</sup>, Mauricio Ulloa<sup>3</sup>, Paul Colaizzi<sup>4</sup> and R. Louis Baumhardt<sup>4</sup>, (1)USDA-ARS, Conservation and Production Research Laboratory, Bushland, TX, (2)USDA-ARS, El Reno, OK, (3)USDA-ARS, Lubbock, TX, (4) USDA-ARS, Bushland, TX

**9:30 AM Alternatives for Chemical Stalk Destruction of 2,4-D Tolerant Cotton in South Texas**

**Josh McGinty**, Texas A&M AgriLife Extension Service, Corpus Christi, TX and Danielle Sekula, Texas A&M AgriLife Extension Service, Weslaco, TX

**9:45 AM Fiber Quality and Gross Profit as Influenced by Sub-Lethal Rates of 2,4-D and Yield Environment**

**Seth A. Byrd**<sup>1</sup>, Misha R. Manuchehri<sup>1</sup>, Peter A. Dotray<sup>2</sup>, J. Wayne Keeling<sup>3</sup> and Gaylon Morgan<sup>4</sup>, (1)Oklahoma State University, Stillwater, OK, (2)Texas Tech University, Texas A&M AgriLife Research and Extension Service, Lubbock, TX, (3)Texas A&M AgriLife Research and Extension Center, Lubbock, TX, (4) Cotton Incorporated, Cary, NC

**COTTON AGRONOMY, PHYSIOLOGY & SOILS CONFERENCE - THURSDAY EARLY MORNING - MS STUDENT COMPETITION**

*JW Grand Salon 2, 8:00 AM-9:00 AM*

**8:00 AM Assessing the Physiological Basis of Yield Response to Irrigation in Cotton**

**Alessandro Ermanis**<sup>1</sup>, John L. Snider<sup>1</sup>, George Vellidis<sup>1</sup>, Stefano Gobbo<sup>1</sup>, Leonardo V. Galdi<sup>2</sup>, Lorena N. Lacerda<sup>1</sup>, Matthew Aaron Bruce<sup>1</sup>, Calvin Perry<sup>3</sup>, Vasileios Liakos<sup>1</sup>, Bobby J. Washington<sup>4</sup>, Amanda Lynn Brown<sup>4</sup> and Yafit Cohen<sup>5</sup>, (1)University of Georgia, Tifton, GA, (2)Universidade do Oeste Paulista, Presidente Prudente, Brazil, (3)Superintendent, Stripling Irrigation Research Park, University of Georgia, Camilla, GA, (4)University of Georgia, Camilla, GA, (5)Agricultural Research Organization (ARO), Bet-Dagan, Israel

**8:15 AM Impact of Row Spacing and Variety on Cotton Fruit Distribution and Yield**

**Steven D. Hall**<sup>1</sup>, Darrin M. Dodds<sup>1</sup>, Bradley Norris<sup>1</sup>, William J Rutland<sup>1</sup>, Jacob P. McNeal<sup>1</sup>, John J. Williams<sup>1</sup>, Tyson B Raper<sup>2</sup>, Tyler Sandlin<sup>3</sup> and Whitney Crow<sup>1</sup>, (1)Mississippi State University, Mississippi State, MS, (2)University of Tennessee, Jackson, TN, (3)Auburn University, Belle Mina, AL

**8:30 AM Evaluating Various Soil Moisture Sensor Thresholds in Cotton in South Carolina**

**Tyler S. Soignier**, Michael T. Plumblee, Gilbert A. Miller, Kendall R. Kirk, John Mueller and Jeremy Greene, Clemson University, Blackville, SC

**8:45 AM Efforts to Improve Cotton Production in Azerbaijan**

**Braden Tondre**<sup>1</sup>, Steve Hague<sup>1</sup>, Uzeyir Topchibashev<sup>2</sup> and Josh McGinty<sup>3</sup>, (1) Texas A&M University, College Station, TX, (2)AgroCenter, Baku, Azerbaijan, (3)Texas A&M AgriLife Extension Service, Corpus Christi, TX

**COTTON AGRONOMY, PHYSIOLOGY & SOILS - THURSDAY LATE MORNING**

*JW Grand Salon 5, 10:30 AM-12:15 PM*

**10:30 AM Effect of an Extract of the Marine Plant, *Ascophyllum Nodosum*, on Boll Abortion of Cotton**

**Robin E Ross**, Acadian Plant Health, Monroe, NC

**10:45 AM Differential Response of Cotton Growth and Yield Attributes to Foliar Spray with Cyanobacterial Extract Under Ascending Amounts of Fertilizer Nitrogen.**

**Amany Ahmed Elashmouny**, Cotton research institute, Egypt, Egypt, Youssif Gorge Yanni, Soil and water research inidtitutr, Egypt, Egypt and Abdelgawad Youssif Elsadany, Soil and water research inidtitutr, Giza, Egypt

**11:00 AM Soil and Foliar-Applied Potassium Fertilizers in Upland Cotton Production**

**William Howard Smith Wendland**<sup>1</sup>, Audrey V. Gamble<sup>2</sup> and Elizabeth Guertal<sup>1</sup>, (1)Department of Crop, Soil, and Environmental Sciences, Auburn University, AL, (2)Auburn University, Auburn, AL

**11:15 AM Cotton Yield Benefits from Poultry Litter Applied as Variable Rate Haile Tewolde** and Johnnie N. Jenkins, USDA-ARS, Mississippi State, MS

**11:30 AM Evaluation of Irrigation and Fertilization Strategies to Improve Irrigation and Nitrogen Water Use Efficiencies in Cotton**

**George Vellidis**<sup>1</sup>, Matthew Gruver<sup>1</sup>, Lorena N. Lacerda<sup>1</sup>, Calvin Perry<sup>2</sup>, Arianna Toffanin<sup>1</sup> and Bobby J. Washington<sup>3</sup>, (1)University of Georgia, Tifton, GA, (2)Superintendent, Stripling Irrigation Research Park, University of Georgia, Camilla, GA, (3)University of Georgia, Camilla, GA

**11:45 AM Development and Testing of Variable Rate Nitrogen Prescriptions for Cotton Production**

**Kendall R. Kirk** and Michael T. Plumblee, Clemson University, Blackville, SC

**12:00 PM Optimum Grid Size for Sampling Soil Variability - Science, Mystery, or Magic**

**Dr. M. Wayne Ebelhar** and Richard E. Turner, Mississippi State University, Stoneville, MS

**COTTON AGRONOMY, PHYSIOLOGY & SOILS - THURSDAY EARLY AFTERNOON**

*JW Grand Salon 5, 1:00 PM-2:30 PM*

**1:00 PM Use of an Ultrasonic Distance Sensor for Estimating Cotton Plant Height**

**Kevin F. Bronson**<sup>1</sup>, Andrew N. French<sup>1</sup> and Edward M. Barnes<sup>2</sup>, (1)US-DA-ARS, Maricopa, AZ, (2)Cotton Incorporated, Cary, NC

**1:15 PM Simulating Climate-Change-Adaptive Cultivars for Sustaining Cotton Production in the Texas High Plains**

Kritika Kothari, University of Kentucky, Lexington, KY, **Srinivasulu Ale**, Texas A&M AgriLife Research, Vernon, TX, James P. Bordovsky, Texas A&M AgriLife Research Center, Lubbock, TX, Clyde Munster, Texas A&M University, College Station, TX and Gerrit Hoogenboom, University of Florida, Gainesville, FL

**1:30 PM Simulated Crop-Growth-Stage-Based Deficit Irrigation Strategies for Cotton for Increasing Water Productivity and Net Returns**

Sushil Kumar Himanshu<sup>1</sup>, Yubing Fan<sup>1</sup>, **Srinivasulu Ale**<sup>1</sup> and James P. Bordovsky<sup>2</sup>, (1)Texas A&M AgriLife Research, Vernon, TX, (2)Texas A&M AgriLife Research Center, Lubbock, TX

**1:45 PM Assessing the Feasibility of Predicting Cotton Fiber Quality Using Multi-Temporal UAS Data**

**Nothabo Dube**<sup>1</sup>, Juan Landivar<sup>2</sup>, Murilo Maeda<sup>3</sup>, Andrea Maeda<sup>2</sup>, Anjin Chang<sup>4</sup>, Akash Ashapure<sup>5</sup>, Jinha Jung<sup>5</sup>, Sungchan Oh<sup>5</sup> and Mahendra Bhandari<sup>6</sup>, (1)Texas A & M AgriLife Research, Corpus Christi, TX, (2)Texas A&M AgriLife Research, Corpus Christi, TX, (3)Texas A & M AgriLife Research, Lubbock, TX, (4)Texas A&M University - Corpus Christi, Corpus Christi, TX, (5)Purdue University, West Lafayette, IN, (6)Texas A & M University, College Station, TX

**2:00 PM UAV or Satellite Monitoring Platform for in Season Management of Cotton Crops**

**Juan Landivar**<sup>1</sup>, Jinha Jung<sup>2</sup>, Akash Ashapure<sup>2</sup>, Nothabo Dube<sup>3</sup>, Murilo Maeda<sup>4</sup> and Anjin Chang<sup>5</sup>, (1)Texas A&M AgriLife Research, Corpus Christi, TX, (2)Purdue University, West Lafayette, IN, (3)Texas A & M AgriLife Research, Corpus Christi, TX, (4)Texas A&M AgriLife Extension, Lubbock, TX, (5)Texas A&M University - Corpus Christi, Corpus Christi, TX

**2:15 PM On Farm Precision Experimentation with Cotton**

**Luciano Shozo Shiratsuchi**, Louisiana State University Agricultural Center, Baton Rouge, LA, Ziany Neiva Brandao, Embrapa Cotton, Campina Grande, Brazil, Edison Ulisses Ramos Junior, Embrapa Agrosilvopastoral, Sinop, Brazil and Murilo Maeda, Texas A&M AgriLife Extension, Lubbock, TX

**COTTON AGRONOMY, PHYSIOLOGY & SOILS CONFERENCE - THURSDAY EARLY AFTERNOON - PHD STUDENT COMPETITION**

*JW Grand Salon 2, 1:00 PM-2:45 PM*

**1:00 PM Contributions of Various Physiological Parameters to Early Season Whole Crop Vigor in Cotton**

**Gurpreet Virk**, John L. Snider and Cristiane Pilon, University of Georgia, Tifton, GA

**1:15 PM Assessing the Impacts of Future Climate on Cotton Production in the Arizona Low Desert**

**Ibukun Timothy Ayankojo**<sup>1</sup>, Kelly R. Thorp<sup>2</sup>, Kelly T. Morgan<sup>1</sup>, Kritika Kothari<sup>3</sup> and Srinivasulu Ale<sup>3</sup>, (1)University of Florida/Southwest Florida Research and Education Center, Immokalee, FL, (2)USDA-ARS, Maricopa, AZ, (3)Texas A&M AgriLife Research, Vernon, TX

**1:30 PM Impacts on Cotton Fiber Quality from Multiple Pickings Compared to Traditional Single Pass Harvest Systems**

**James A. Griffin**, Texas A&M Cotton Extension, College Station, TX, Gaylon Morgan, Texas A&M AgriLife Extension Service, College Station, TX, Emi Kimura, Texas A&M AgriLife Research and Extension Service, Vernon, TX, John L. Snider, University of Georgia, Tifton, GA, Tyson B Raper, University of Tennessee, Jackson, TN and Edward M. Barnes, Cotton Incorporated, Cary, NC

**1:45 PM UAV and Satellite-Based Images Correlation with Cotton Physiological Parameters and Their Use as a Tool for Variable Rate Irrigation in Cotton**

**Lorena N. Lacerda**<sup>1</sup>, John L. Snider<sup>1</sup>, Vasileios Liakos<sup>1</sup>, Alessandro Ermanis<sup>2</sup>, Leonardo V. Galdi<sup>3</sup> and George Vellidis<sup>1</sup>, (1)University of Georgia, Tifton, GA, (2)University of Padova, Legnaro, Italy, (3)Universidade do Oeste Paulista, Presidente Prudente, Brazil

**2:00 PM Foliar Fertilizer Use in Cotton Under Various Fertility Programs**

**Bradley R. Wilson**<sup>1</sup>, Seth A. Byrd<sup>1</sup>, Katie L. Lewis<sup>2</sup>, Brian Arnall<sup>1</sup> and Cayden B. Catlin<sup>1</sup>, (1)Oklahoma State University, Stillwater, OK, (2)Texas A&M AgriLife Research Center, Lubbock, TX

**2:15 PM Cover Crop Management in Texas High Plains Cotton**

**C.D. Ray White**<sup>1</sup>, Katie L. Lewis<sup>2</sup> and J. Wayne Keeling<sup>2</sup>, (1)Texas A&M AgriLife Research, Lubbock, TX, (2)Texas A&M AgriLife Research and Extension Center, Lubbock, TX

**2:30 PM Optimizing Irrigation and Fertilizer Management in Cotton to Increase Nitrogen Use Efficiency**

**Ameé Bumgardner**<sup>1</sup>, Katie L. Lewis<sup>2</sup> and Terry A Wheeler<sup>2</sup>, (1)Texas Tech University, Lubbock, TX, (2)Texas A&M AgriLife Research and Extension Center, Lubbock, TX

**COTTON AGRONOMY, PHYSIOLOGY & SOILS - THURSDAY LATE AFTERNOON**

*JW Grand Salon 5, 4:00 PM-5:00 PM*

**4:00 PM Evaluation of Variety Performance with Regard to Bollworm Management in NC - MOVED TO POSTER SESSION**

**Guy D. Collins**<sup>1</sup>, Anders S. Huseth<sup>2</sup>, Kristen A. Hopperstad<sup>3</sup>, Dominic Reisig<sup>4</sup>, Keith L. Edmisten<sup>2</sup> and Charlie Cahoon<sup>2</sup>, (1)NC State University, Rocky Mount, NC, (2)North Carolina State University, Raleigh, NC, (3)NC State University, Raleigh, NC, (4)North Carolina State University, Plymouth, NC

**4:15 PM Evaluating the Effect of in-Furrow Applied Aldicarb for the Prevention of Deer Browsing on Seedling Cotton in Georgia.**

**Katie Burch**, UGA Extension Burke County, Waynesboro, GA, Mark Freeman, Extension Agronomist, Department of Crop and Soil Sciences, Statesboro, GA and Jason E. Mallard, University of Georgia Cooperative Extension, Millen, GA

**4:30 PM Plant Spacing Effects on Cotton Yield and Yield Contributing Characters**

**MD - Akhteruzzaman**, Cotton Development Board, Dhaka-1215, Bangladesh

**4:45 PM Heat Stress and Low Desert Cotton - Results of 2018 Experimentation**

**Michael D. Rethwisch**, University of California Cooperative Extension, Blythe, CA, Brad Robinson, Robinson Farms, Blythe, CA, Ryan Seiler, Jack Seiler Farms, Palo Verde, CA and Aaron Palmer, Bryce Farms, Blythe, CA

**COTTON AGRONOMY, PHYSIOLOGY & SOILS CONFERENCE - THURSDAY LATE AFTERNOON - PHD STUDENT COMPETITION**

*JW Grand Salon 2, 4:00 PM-5:00 PM*

**4:00 PM Nitrogen Management in Conservation Systems to Increase Use Efficiency and Cotton Production**

**Joseph Alan Burke**, Texas A&M AgriLife Research, Lubbock, TX and Katie L. Lewis, Texas A&M AgriLife Research and Extension Center, Lubbock, TX

**4:15 PM Relationship between Cotton Reflectance Data and Visual Injury Ratings of Varied Rates of 2,4-D and Dicamba**

**Savana D Denton**<sup>1</sup>, Tyson B Raper<sup>1</sup>, Freeman Brown<sup>1</sup>, Darrin M. Dodds<sup>2</sup> and Christopher Main<sup>3</sup>, (1)University of Tennessee, Jackson, TN, (2)Mississippi State University, Mississippi State, MS, (3)Dow AgroSciences, Medina, TN

**4:30 PM Cotton (*Gossypium hirsutum*) Defoliation As Affected By Droplet Size and Carrier Volume**

**Jacob P. McNeal**<sup>1</sup>, Darrin M. Dodds<sup>1</sup>, Greg Kruger<sup>2</sup>, John J. Williams<sup>1</sup>, Steven D. Hall<sup>1</sup> and Bradley Norris<sup>1</sup>, (1)Mississippi State University, Mississippi State, MS, (2)University of Nebraska - Lincoln, North Platte, NE

**4:45 PM Impact of Cultivar Variation in Cotton Seed Characteristics and Nitrogen Application Rate on Crop Development and Yield Component Responses**

**Matthew Aaron Bruce**<sup>1</sup>, John L. Snider<sup>1</sup>, Alessandro Ermanis<sup>2</sup>, Jared R. Whitaker<sup>1</sup>, Leonardo V. Galdi<sup>3</sup> and Guy D. Collins<sup>4</sup>, (1)University of Georgia, Tifton, GA, (2)University of Padova, Legnaro, Italy, (3)Universidade do Oeste Paulista, Presidente Prudente, Brazil, (4)North Carolina State University, Rocky Mount, NC

**COTTON AGRONOMY & PHYSIOLOGY BUSINESS MEETING**

*JW Grand Salon 5, 5:15 PM-7:00 PM*

# Cotton Disease Council

**COTTON DISEASE COUNCIL - STUDENT PAPER COMPETITION**

*Rooms 211-212, 1:00 PM-3:15 PM*

**1:00 PM Cotton Cultivar Response to CLRDV as Influenced By Planting Date**

**Drew Schrimsher** and Kathy S. Lawrence, Auburn University, Auburn, AL

**1:15 PM Investigating the Interaction between Crop Age and Timing of Cotton Leafroll Dwarf Virus Inoculation on Disease Severity and Yield Loss**

**Autumn A. McLaughlin**, Kassie Conner, Kira L. Bowen, Austin K. Hagan, Will Groover, Kathy Lawrence and Alana Lynn Jacobson, Auburn University, Auburn, AL

**1:30 PM G143A Mutation in the Cytochrome b Gene Detected from *Corynespora cassiicola* Isolates in Alabama**

**Marina Nunes Rondon**, Bisho Ram Lawaju and Kathy Lawrence, Auburn University, Auburn, AL

**1:45 PM Identification of Host-Selective Toxins in *Corynespora cassiicola* Causing Target Spot of Cotton, Soybean and Tomato**

**Manuela A. Samaco**<sup>1</sup>, Robert C. Kemerait<sup>2</sup>, Anthony E. Glenn<sup>1</sup>, Trevor R. Mitchell<sup>1</sup> and Marin T. Brewer<sup>1</sup>, (1)University of Georgia, Athens, GA, (2) University of Georgia, Tifton, GA

**2:00 PM High Demand for Joint Effort: Improving Hemp Production for CBD in Tennessee**

**Madison Cartwright**, Zach Hansen, Eric Walker and Heather Young, University of Tennessee, Jackson, TN

**2:15 PM Fungicide Resistance Screening Target Spot in Cotton and Soybean**

**Ty Smith** and Heather Kelly, University of Tennessee, Jackson, TN

**2:30 PM An Assessment of Seed Treatment Efficacy and Cotton Seedling Disease Presence Using Innovative Techniques**

**Shelly Neill Pate**<sup>1</sup>, Heather Kelly<sup>1</sup>, Rachel R. Guyer<sup>1</sup>, Kathy S. Lawrence<sup>2</sup>, Alejandro Rojas<sup>3</sup>, Robert C. Kemerait<sup>4</sup>, P. D. Colyer<sup>5</sup>, Paul Price<sup>6</sup>, Tessie H. Wilkerson<sup>7</sup>, Thomas W. Allen<sup>8</sup>, Lindsey D. Thiessen<sup>9</sup>, Terry A. Wheeler<sup>10</sup>, Thomas Isakeit<sup>11</sup> and Hillary L. Mehl<sup>12</sup>, (1)University of Tennessee, Jackson, TN, (2) Auburn University, Auburn, AL, (3)University of Arkansas, Fayetteville, AR, (4)University of Georgia, Tifton, GA, (5)LSU AgCenter, Bossier City, LA, (6) Louisiana State University, Winnsboro, LA, (7)Mississippi State University, Stoneville, MS, (8)Mississippi State University, Delta Research and Extension Center, Stoneville, MS, (9)NC State University, Raleigh, NC, (10)Texas A&M AgriLife Research, Lubbock, TX, (11)Texas A&M University, College Station, TX, (12)Virginia Tech Tidewater AREC, Suffolk, VA

**2:45 PM Molecular, Genomic and Cellular Characterization of Emerging Fusarium Wilt of Cotton Race 4 in Texas**

**Catherine Danmaigona Clement**<sup>1</sup>, Zunyong Liu<sup>1</sup>, Liang Kong<sup>1</sup>, Lin Zhang<sup>1</sup>, Steve Hague<sup>1</sup>, Thomas Isakeit<sup>1</sup>, Terry A Wheeler<sup>2</sup>, Ping He<sup>1</sup>, Jane K Dever<sup>2</sup> and Libo Shan<sup>1</sup>, (1)Texas A&M University, College Station, TX, (2)Texas A&M AgriLife Research and Extension Center, Lubbock, TX

**3:00 PM A Robust Metric for the Environmental Quantification of Fusarium Oxysporum f. Sp. Vasinfectum Race 4**

**Roy Davis** and Thomas M. Chappell, Texas A&M University, College Station, TX

**COTTON DISEASE COUNCIL - STUDENT PAPER COMPETITION (CONT'D) AND AFTERNOON TECHNICAL SESSION**

*Rooms 211-212, 4:00 PM-5:30 PM*

**4:00 PM Multi-Year Study of the Temporal Variability of Fusarium Oxysporum F. SP. Oxysporum Races As Influenced By Cotton Cultivar and in the National Cotton Fusarium Wilt Evaluation FIELD in Alabama.**

**David R Dyer** and Kathy S. Lawrence, Auburn University, Auburn, AL

**4:15 PM Yield Benefits of Nematicide Applications across Multiple Cotton Cultivars in Root-Knot and Reniform Nematode Infested Fields**

**Will Groover**, David R Dyer and Kathy S. Lawrence, Auburn University, Auburn, AL

**4:30 PM Effect of Soybean Cyst Nematode on Dynamics of N-Fixation, Root, and Leaf Growth in Three Soybean Lines.**

**Rufus J Akinrinlola<sup>1</sup>**, Heather Kelly<sup>2</sup>, Thomas Sinclair<sup>3</sup> and Avat Shekoofa<sup>2</sup>, (1)University of Tennessee Knoxville, Jackson, TN, (2)University of Tennessee, Jackson, TN, (3)Crop Science Department, North Carolina State University, Raleigh, NC

**4:45 PM Predicting Disease in the Field before It Becomes an Issue**

**Michael Prorock**, mesur.io, Chapel Hill, NC

**5:00 PM Efficacy and Yield Protection from Developmental Fungicides Compared for the Control of Target Spot in Cotton.**

**Austin Hagan<sup>1</sup>**, Katherine Burch<sup>1</sup> and H. Brad Miller<sup>2</sup>, (1)Auburn University, Auburn, AL, (2)Brewton Agricultural Research Unit, Brewton, AL

**5:15 PM Reaction of Cotton Cultivars and Breeding Lines to Target Spot in Alabama.**

**Austin Hagan<sup>1</sup>**, Katherine Burch<sup>1</sup>, H. Brad Miller<sup>2</sup> and Don Moore<sup>3</sup>, (1) Auburn University, Auburn, AL, (2)Brewton Agricultural Research Unit, Brewton, AL, (3)Prattville Agricultural Research Unit, Prattville, AL

**COTTON DISEASE COUNCIL - BUSINESS MEETING**

*Rooms 211-212, 5:45 PM-7:00 PM*

**5:45 PM Bacterial Blight Report for the Business Meeting**

**Terry A. Wheeler**, Texas A&M AgriLife Research, Lubbock, TX

# Cotton Economics and Marketing Conference

**COTTON ECONOMIC OUTLOOK SYMPOSIUM**

*JW Grand Salon 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 Update on U.S. Ag Policy**

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

**11:00 AM U.S. Cotton Market Outlook**

**John R.C. Robinson**, Texas A&M University, College Station, TX

**11:30 AM China in an Evolving Market**

**Dale Cougot**, Olam International, Richardson, TX

**COTTON ECONOMICS AND MARKETING - THURSDAY EARLY AFTERNOON**

*JW Grand Salon 4, 1:30 PM-3:00 PM*

**1:30 PM Economic Analysis of Modern Irrigation Scheduling Strategies on Cotton Production Under Different Tillage Systems in South Georgia**

**Anukul Bhattarai<sup>1</sup>**, Yangxuan Liu<sup>2</sup>, Amanda Smith<sup>3</sup>, Vasileios Liakos<sup>4</sup> and George Vellidis<sup>4</sup>, (1)Graduate Research Associate, University of Georgia, Athens, GA, (2)Extension Economists, Department of Agricultural & Applied Economics, Tifton, GA, (3)Extension Economists, University of Georgia, Tifton, GA, (4)University of Georgia, Tifton, GA

**1:50 PM Costs of Alternative Loading and Unloading Strategies in a Cooperative Cotton Warehouse**

**Jessica A Richard**, Phil Kenkel and Eric DeVuyst, Oklahoma State University, Stillwater, OK

**2:10 PM Optimal Autonomous Robotic Harvest Systems for Cotton: Parameterizing a Whole-Farm Linear Programming Model**

**Terry W Griffin** and Gregory Ibendahl, Kansas State University, Manhattan, KS

**2:30 PM Dynamic Modeling of a Conventional and Robotic Harvester System**

**Gregory Ibendahl** and Terry W Griffin, Kansas State University, Manhattan, KS

**COTTON ECONOMICS AND MARKETING -POSTERS**

*JW Grand Salon 4, 1:30 PM-6:00 PM*

**1. Cotton Enterprise Budget: Understanding Your Production Costs and Breakeven Prices**

**Mengyu Zhou**<sup>1</sup>, Yangxuan Liu<sup>2</sup>, Amanda R Smith<sup>2</sup>, Wesley M Porter<sup>3</sup>, A. Stanley Culpepper<sup>4</sup> and Mark Freeman<sup>5</sup>, (1)Graduate Research Associate, Department of Agricultural & Applied Economics, ATHENS, GA, (2)Extension Economists, Department of Agricultural & Applied Economics, Tifton, GA, (3)Assistant Professor, Department of Crop and Soil Sciences, Tifton, GA, (4) University of Georgia, Tifton, GA, (5)Extension Agronomist, Department of Crop and Soil Sciences, Statesboro, GA

**2. The Cost of Irrigation Ownership and Operating Costs through Irrigation Budgets for South Georgia**

**Anukul Bhattarai**, Graduate Research Associate, University of Georgia, Athens, GA, Amanda Smith, Extension Economists, University of Georgia, Tifton, GA, Yangxuan Liu, Extension Economists, Department of Agricultural & Applied Economics, Tifton, GA, Calvin Perry, Superintendent, Stripling Irrigation Research Park, University of Georgia, Camilla, GA and Cale Cloud, Extension Area Water Agent, Southwest District Extension, University of Georgia, Tifton, Georgia, Tifton, GA

**3. Examining Alternative Farm Program Selection on Louisiana Cotton Farms Using a Risk Return Framework**

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

**4. Economic Comparison of Crop Row Offset and Orientation to SDI Laterals**

**Donna McCallister**<sup>1</sup>, Will Keeling<sup>2</sup>, Jeff Pate<sup>2</sup>, James P. Bordovsky<sup>3</sup> and J. T. Mustian<sup>4</sup>, (1)Texas Tech University, Lubbock, TX, (2)Texas A&M AgriLife Extension, Lubbock, TX, (3)Texas A&M AgriLife Research Center, Lubbock, TX, (4)Texas A&M AgriLife Research, Plainview, TX

**5. Government Payments to Cotton Under the Agricultural Act of 2014 and Other Supplemental Programs**

**Aaron Smith**, Victoria Campbell and Becky Bowling, University of Tennessee, Knoxville, TN

**6. The Impact of Agricultural Mechanization and Land Scale on Total Factor Productivity in Cotton Production in China**

**Zhongna Yang, Man Yu and Ashley Lovell**, Tifton State University, Stephenville, TX

**COTTON ECONOMICS AND MARKETING - THURSDAY LATE AFTERNOON**

*JW Grand Salon 4, 4:00 PM-5:00 PM*

**4:00 PM Modeling Yield from Crop Progress, Condition, & the Weather**  
**Jon Devine**, Cotton Incorporated, Cary, NC

**4:20 PM Impacts of the China-U.S. Trade War on the U.S. Cotton Sector**

**Andrew Muhammad**<sup>1</sup>, **Aaron Smith**<sup>1</sup> and **Stephen MacDonald**<sup>2</sup>, (1)University of Tennessee, Knoxville, TN, (2)USDA-OCE, Washington, DC

**4:40 PM Cotton and Polyester Price Interaction in Global Markets**

**Stephen A MacDonald**, U.S. Department of Agriculture, Washington, DC



Thursday, January 9, 2020

# Cotton Engineering-Systems Conference

## COTTON ENGINEERING-SYSTEMS - THURSDAY EARLY AFTERNOON

*Room 401, 1:00 PM-3:00 PM*

### **1:00 PM Design and Development of an Automated, 4-Row Cotton Plot Picker**

Kendall R. Kirk<sup>1</sup>, **L. Alex Samenko**<sup>1</sup>, Timothy F. Still<sup>2</sup>, Benjamin B. Fogle<sup>1</sup> and Michael T. Plumblee<sup>1</sup>, (1)Clemson University, Blackville, SC, (2)Clemson University, Blackville, SC

### **1:15 PM Field Testing of the Autonomous Cotton Harvesting Robot in an Undeveloped Cotton Field**

**Kadeghe Goodluck Fae**<sup>1</sup>, Wesley M Porter<sup>2</sup>, Edward M. Barnes<sup>3</sup> and Glen C. Rains<sup>1</sup>, (1)University of Georgia, Tifton, GA, (2)Assistant Professor, Department of Crop and Soil Sciences, Tifton, GA, (3)Cotton Incorporated, Cary, NC

### **1:30 PM Mapping of in-Field Cotton Fiber Quality Utilizing John Deere Harvest Identification System**

**Luke McLeod Fuhrer**, University of Georgia, Tifton, GA, Wesley M Porter, Assistant Professor, Department of Crop and Soil Sciences, Tifton, GA and Edward M. Barnes, Cotton Incorporated, Cary, NC

### **1:45 PM Modernizing Cotton Replanting Recommendations Using UAV Imagery**

**Enrique E Pena Martinez**<sup>1</sup>, Guy D. Collins<sup>2</sup> and Jason K Ward<sup>1</sup>, (1)North Carolina State University, Raleigh, NC, (2)North Carolina State University, Rocky Mount, NC

### **2:00 PM Estimation of on Plant & on Ground Losses Using RGB Aerial Imagery**

**Brennan E. Teddy**, Kendall R. Kirk and Michael T. Plumblee, Clemson University, Blackville, SC

### **2:15 PM Feral Cotton Habitat Prediction Model and Detection with UAV Remote Sensing**

**Tianyi Wang**, Xiaohan Mei, J. Alex Thomasson, Xiongze Han and Pappu Kumar Yadav, Texas A&M University, College Station, TX

### **2:30 PM UAV-Based Multispectral Detection of Plastic Debris in Cotton Fields**

**Cody D Blake**<sup>1</sup>, Ruixiu Sui<sup>1</sup> and Chenghai Yang<sup>2</sup>, (1)USDA-ARS, Stoneville, MS, (2)USDA-ARS, College Station, TX

### **2:45 PM Phenotyping Cotton Water Use with Multispectral Drone Imagery and Geospatial FAO-56 Methods**

**Kelly R. Thorp**<sup>1</sup>, Alison L. Thompson<sup>1</sup>, Sara J. Harders<sup>1</sup>, Andrew N. French<sup>1</sup> and Rick W. Ward<sup>2</sup>, (1)USDA-ARS, Maricopa, AZ, (2)University of Arizona, Maricopa, AZ

## COTTON ENGINEERING-SYSTEMS - THURSDAY LATE AFTERNOON

*Room 401, 4:00 PM-5:00 PM*

### **4:00 PM Comparing Precision Metering and Seed Delivery Systems for Increasing Cotton Planting Speed**

**Wesley M Porter**<sup>1</sup>, Simerjeet S. Virk<sup>2</sup>, Darian Landolt<sup>3</sup>, Ronnie Barentine<sup>4</sup> and Aaron Prewitt<sup>3</sup>, (1)Assistant Professor, Department of Crop and Soil Sciences, Tifton, GA, (2)University of Georgia, Tifton, GA, (3)CNH Industrial, Burr Ridge, IL, (4)University of Georgia, Vienna, GA

**4:15 PM Evaluation of Planter Depth and Downforce for Planting Cotton in Diverse Field Conditions**

**Simerjeet S. Virk**<sup>1</sup>, Wesley M Porter<sup>2</sup>, John L. Snider<sup>1</sup>, Jared R. Whitaker<sup>1</sup> and Changying Li<sup>3</sup>, (1)University of Georgia, Tifton, GA, (2)Assistant Professor, Department of Crop and Soil Sciences, Tifton, GA, (3)College of Engineering, The University of Georgia, Athens, GA

**4:30 PM On-Farm Evaluation of Planter Downforce in Varying Soil Textures for Improving Cotton Emergence**

**Simerjeet S. Virk**<sup>1</sup>, Wesley M Porter<sup>2</sup>, Pam Sapp<sup>1</sup>, Ronnie Barentine<sup>3</sup>, Stephanie Hollifield<sup>4</sup> and Jay Porter<sup>5</sup>, (1)University of Georgia, Tifton, GA, (2) Assistant Professor, Department of Crop and Soil Sciences, Tifton, GA, (3) University of Georgia, Vienna, GA, (4)University of Georgia, Quitman, GA, (5) University of Georgia, Hawkinsville, GA

**4:45 PM Use of Statistical Methods to Model Machine Parameters Affecting 3D Printed Cotton/PLA Fabrics**

**Josphat Igadwa Mwasiagi** and Nonsikelelo Sheron Mpofu, Moi University, Eldoret, Kenya

# Cotton Ginning Conference

## COTTON GINNING - THURSDAY EARLY AFTERNOON

*JW Grand Salon 3, 1:30 PM-3:15 PM*

**1:30 PM 2019 Crop Quality USDA-AMS**

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

**1:45 PM The Effect of Conventional and Experimental Lint Cleaning Processes on Fiber Length Uniformity Index**

**Carlos B. Armijo**<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>, Greg A. Holt<sup>4</sup>, Ruixiu Sui<sup>5</sup>, Vikki B. Martin<sup>6</sup>, Neha Kothari<sup>6</sup>, Cody D. Blake<sup>7</sup> and Mathew G. Pelletier<sup>3</sup>, (1)USDA-ARS Southwestern Cotton Ginning Research Laboratory, Mesilla Park, NM, (2)USDA-ARS, New Orleans, LA, (3)USDA-ARS Cotton Production and Processing Research Unit, Lubbock, TX, (4)USDA ARS CPPRU, Lubbock, TX, (5)USDA-ARS, Stoneville, MS, (6)Cotton Incorporated, Cary, NC, (7)USDA-ARS Cotton Ginning Research Lab, Stoneville, MS

**2:00 PM The Influence of Drum Arrangement of Spindle Harvesters on Fiber Quality and Yield**

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

**2:15 PM Quality and Length Uniformity Panel**

**Vikki B. Martin**, Cotton Incorporated, Cary, NC

**2:25 PM Quality and Length Uniformity Panel - Textile Mill Perspective**

**Chuck Ward**, Gildan, Salisbury, NC

**2:35 PM Quality and Length Uniformity Panel - Coop Merchant Member**

**Frederick Barrier**, Staplcotn, Greenwood, MS

**2:45 PM Quality and Length Uniformity Panel - Merchant Member**

**Jeffery A. Johnson**, Louis Dreyfus Company, Cordova, TN

**2:55 PM Quality and Length Uniformity Panel USDA-ARS**

**Christopher D. Delhom**, USDA-ARS, New Orleans, LA

## COTTON GINNING - THURSDAY LATE AFTERNOON

*JW Grand Salon 3, 3:45 PM-6:00 PM*

**3:45 PM An Update on Efforts to Understand Cottonseed Hull Fracture Resistance**

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

**4:00 PM Advances in Managing Cotton Modules Using RFID Technology - System Development Update**

**John D. Wanjura**, USDA-ARS Cotton Production and Processing Research Unit, Lubbock, TX, Gregory A. Holt, USDA ARS, Lubbock, TX, Mathew G. Pelletier, USDA ARS CPPRU, Lubbock, TX and Edward M. Barnes, Cotton Incorporated, Cary, NC

**4:15 PM Patenting Versus Open Source**

**Greg A. Holt**, USDA ARS CPPRU, Lubbock, TX

**4:25 PM Patenting Versus Open Source - University Perspective**

**Janie Hurley**, Texas A&M University, College Station, TX

**4:35 PM Patenting Versus Open Source - Equipment Manufacturer Perspective**

**Joe W. Thomas**, Lummus Corporation, Savannah, GA

**4:45 PM Patenting Versus Open Source - Industry Service Provider Perspective**

**Steve Moffett**, Lubbock Electric Company, Lubbock, TX

**4:55 PM Patenting Versus Open Source - Ginner Perspective**

**David Blakemore**, Blakemore Cotton & Grain, Campbell, MO

**5:05 PM Patenting Versus Open Source - Cotton Inc. Perspective**

**Edward M. Barnes**, Cotton Incorporated, Cary, NC

# Cotton Improvement Conference

## COTTON IMPROVEMENT - DISEASE

*Brazos, 1:15 PM-3:00 PM*

**1:15 PM Phenotypic and Genotypic Evaluation of Wild Upland Cotton Accessions Previously Identified in the Literature As Resistant to Root-Knot or Reniform Nematode**

**Amanda G Gaudin**, Martin J Wubben, Dewayne D. Deng, Jack C. McCarty and Johnie N. Jenkins, USDA-ARS, Mississippi State, MS

**1:30 PM Field Survey, Detection and Characterization of Fusarium Wilt Race 4 in Cotton in New Mexico**

**Jinfa Zhang**<sup>1</sup>, Yi Zhu<sup>1</sup>, Abdelraheem Abdelraheem<sup>1</sup>, Philip Lujan<sup>1</sup>, John Idowu<sup>1</sup>, Robert L. Nichols<sup>2</sup> and Tom Wedegaertner<sup>2</sup>, (1)New Mexico State University, Las Cruces, NM, (2)Cotton Incorporated, Cary, NC

**1:45 PM Improving Cotton Resistance to FOV- Race 4**

**Caitlin Lakey**<sup>1</sup>, Terry A. Wheeler<sup>2</sup>, Libo Shan<sup>1</sup>, Jane K Dever<sup>2</sup> and Steve Hague<sup>1</sup>, (1)Texas A&M University, College Station, TX, (2)Texas A&M AgriLife Research, Lubbock, TX

**2:00 PM Genetic Analysis and Quantitative Trait Locus Mapping of Fusarium Wilt Race 4 Resistance in a Recombinant Inbred Line Population of Pima Cotton**

**Abdelraheem Abdelraheem**<sup>1</sup>, Tom Wedegaertner<sup>2</sup> and Jinfa Zhang<sup>1</sup>, (1) New Mexico State University, Las Cruces, NM, (2)Cotton Incorporated, Cary, NC

**2:15 PM Identifying Germplasm with Resistance to Fusarium Oxysporum f. Sp. Vasinfectum**

**Edward Beasley**, UGA, Tifton, GA, Nelson Dias Suassuna, Brazilian Agricultural Research Corporation - EMBRAPA, Santo Antonio de Goias - GO, Brazil and Peng Chee, University of Georgia, Tifton, GA

**2:30 PM Effects of Verticillium Wilt on Photosynthesis, Yield and Fiber Quality of Greenhouse-Grown Upland Cotton Lines**

**Addisu G Ayele**<sup>1</sup>, Terry A Wheeler<sup>2</sup> and Jane K Dever<sup>1</sup>, (1)Texas A&M AgriLife Research, Lubbock, TX, (2)Texas A&M AgriLife Research and Extension Center, Lubbock, TX

**2:45 PM DNA Markers Associated with Blue Disease and Bacterial Blight Resistance Genes and Their Applications in Cotton Breeding**

**David D. Fang**, Cotton Fiber Bioscience Research Unit, USDA-ARS-SRRC, New Orleans, LA

**COTTON IMPROVEMENT - ABIOTIC STRESS**

*Brazos, 3:30 PM-4:30 PM*

**3:30 PM Measuring Radiation Use Efficiency of Cotton Grown in the Arid Southwest**

**Alison L Thompson** and Matthew T Herritt, USDA-ARS-ALARC, Maricopa, AZ

**3:45 PM Cotton DNA Methylation and Its Analysis Under the Salt- and Draught-Stress**

**Wuwei Ye**, Institute of Cotton Research, CAAS, Anyang, China

**4:00 PM Exploring Novel Genetic Donors of Salt Tolerance across the Tetraploid Cultivated Cotton Germplasm (*Gossypium hirsutum*) By Transcriptome Profiling and Genetic Network Modeling**

**Junghyun Shim**<sup>1</sup>, Kevin Cushman<sup>2</sup>, Megan Sweeney<sup>3</sup> and Benildo G de los Reyes<sup>2</sup>, (1)Texas Tech University, LUBBOCK, TX, (2)Texas Tech University, Lubbock, TX, (3)Agroscience BASF, North Carolina, NC

**4:15 PM Waterlogging Tolerance in Six Cotton Genotypes at the Seedling Stage**

**Abdelraheem** and Jinfa Zhang, New Mexico State University, Las Cruces, NM

# Cotton Insect Research and Control Conference

**COTTON INSECT RESEARCH & CONTROL CONF. - THURSDAY EARLY AFTERNOON - MS STUDENT PAPER COMPETITION I**

*JW Grand Salon 6, 1:15 PM-3:15 PM*

**1:15 PM Management of Brown Stink Bugs, *Euschistus servus*, in Seedling Field Corn**

**Tim Bryant**, Virginia Tech, Suffolk, VA, Sally Taylor, Virginia Tech University, Suffolk, VA and Roger Schurch, Virginia Tech, Blacksburg, VA

**1:30 PM Evaluation of Bt Resistance in *Helicoverpa zea* Populations Using Various Bt Cotton Plant Tissues**

**Dawson Kerns**<sup>1</sup>, William J. Moar<sup>2</sup>, Juan Luis Jurat-Fuentes<sup>3</sup>, Rafael Ferreira Dos Santos<sup>3</sup> and Scott D. Stewart<sup>1</sup>, (1)The University of Tennessee, Jackson, TN, (2)Bayer Crop Science, Chesterfield, MO, (3)University of Tennessee, Knoxville, TN

**1:45 PM Evaluation of Bollworm Management in Bt Cotton**

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

**2:00 PM Potential Insect Deterrence in a Tri-Species Progeny**

**Raven S. Allison**<sup>1</sup>, David Kerns<sup>1</sup>, Charles P.-C. Suh<sup>2</sup> and Steve Hague<sup>1</sup>, (1) Texas A&M University, College Station, TX, (2)USDA-ARS ICCDRU, College Station, TX

**2:15 PM Evaluation of Biotechnical Efficacy and Economic Impact of Multi-Gene Cotton Production Systems for Control of Corn Earworm *Helicoverpa zea* in Cotton Production in Arkansas**

**Caleb Rice**<sup>1</sup>, Gus Lorenz<sup>2</sup>, Nick R. Bateman<sup>3</sup>, Benjamin C Thrash<sup>1</sup>, Nichole Taillon<sup>4</sup>, Garrett Felts<sup>5</sup>, Andrew Plummer<sup>4</sup>, Wes Plummer<sup>6</sup>, Kevin McPherson<sup>1</sup> and Chase A Floyd<sup>1</sup>, (1)University of Arkansas, Lonoke, AR, (2)The University of Arkansas, Lonoke, AR, (3)University of Arkansas - RREC, Stuttgart, AR, (4) University of Arkansas CES, Lonoke, AR, (5)University of Arkansas- RREC, Stuttgart, AR, (6)UA-CES, Lonoke, AR

**2:30 PM Evaluation of the Rainfastness of Selected Insecticides in Cotton**

**Sara Barrett**<sup>1</sup>, Jeff Gore<sup>2</sup>, Angus Catchot<sup>3</sup>, Don Cook<sup>2</sup> and Darrin M. Dodds<sup>3</sup>, (1)Mississippi State University, Department of Biochemistry, Molecular Biology, Entomology, and Plant Pathology, Starkville, MS, (2)Mississippi State University, Stoneville, MS, (3)Mississippi State University, Mississippi State, MS

**2:45 PM Effects of Fungal Endophyte Treatment and Herbivory on Extra Floral Nectar Carbohydrate Composition in Cotton**

**Caroline M Wilson**<sup>1</sup>, Cody Gale<sup>1</sup>, Angel Helms<sup>1</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

**3:00 PM Investigating Floral Tissue As a Reservoir for Insecticide and Fungicide Residues in West Tennessee Cotton and Soybean**

**Andrew L Lawson**, University of Tennessee, Knoxville, TN

**COTTON INSECT RESEARCH & CONTROL CONF. - THURSDAY EARLY AFTERNOON - PHD STUDENT PAPER COMPETITION**

*JW Grand Salon 1, 1:15 PM-3:15 PM*

**1:15 PM Macronutrient Availability Alters Susceptibility of *Helicoverpa zea* (Lepidoptera: Noctuidae) to *Helicoverpa armigera* Nucleopolyhedrovirus**

**Joseph Black**<sup>1</sup>, Spencer Behmer<sup>1</sup>, Micky D. Eubanks<sup>2</sup>, Ashley Tessnow<sup>1</sup> and Gregory A. Sword<sup>1</sup>, (1)Texas A&M University, College Station, TX, (2)Texas A&M University, Dept. of Entomology, College Station, TX

**1:30 PM Impact of Blended and Structured Non-Bt Refuge on *Helicoverpa zea* (Lepidoptera: Noctuidae) Pupal Depth, Weight and Survival in Corn.**

**Daniela T Pezzini**, North Carolina State University, Raleigh, NC, David Buntin, University of Georgia, Griffin, GA, Silvana Paula-Moraes, University of Florida, Jay, FL, Francis Reay-Jones, Clemson University, Florence, SC and Dominic Reisig, North Carolina State University, Plymouth, NC

**1:45 PM Insecticide Efficacy and Resistance Mechanisms of Tarnished Plant Bug Populations in Southeastern Cotton**

**Seth Dorman**<sup>1</sup>, Aaron Gross<sup>2</sup>, Sally Taylor<sup>1</sup>, Dominic Reisig<sup>3</sup>, Ron Smith<sup>4</sup>, Beverly Catchot<sup>5</sup>, Phillip Roberts<sup>6</sup>, Francis Reay-Jones<sup>7</sup> and Jeremy Greene<sup>8</sup>, (1) Virginia Tech University, Suffolk, VA, (2)Virginia Tech University, Blacksburg, VA, (3)North Carolina State University, Plymouth, NC, (4)Auburn University, Auburn, AL, (5)Mississippi State University, Mississippi State, MS, (6)University of Georgia, Tifton, GA, (7)Clemson University, Florence, SC, (8)Clemson University, Blackville, SC

**2:00 PM Evaluation of Rice Billbug *Sphenophorus pertinax* Control in Furrow Irrigated Rice Production Systems in Arkansas**

**Chase A Floyd**<sup>1</sup>, Gus Lorenz<sup>2</sup>, Nick R. Bateman<sup>3</sup>, Benjamin C Thrash<sup>1</sup>, Jarrod Hardke<sup>4</sup>, Neelendra Joshi<sup>5</sup>, Nichole Taillon<sup>6</sup>, Garrett Felts<sup>7</sup>, Andrew Plummer<sup>6</sup>, Wes Plummer<sup>8</sup>, Kevin McPherson<sup>1</sup> and Caleb Rice<sup>1</sup>, (1)University of Arkansas, Lonoke, AR, (2)The University of Arkansas, Lonoke, AR, (3)University of Arkansas - RREC, Stuttgart, AR, (4)University of Arkansas-RREC, Stuttgart, AR, (5) University of Arkansas, Fayetteville, AR, (6)University of Arkansas CES, Lonoke, AR, (7)University of Arkansas- RREC, Stuttgart, AR, (8)UA-CES, Lonoke, AR

**2:15 PM Warming Impacts Pest Response to the Cues of Biological Control Agents**

**Cori Speights**, Angus Catchot and Brandon Barton, Mississippi State University, Mississippi State, MS

**2:30 PM Population Genomic Insights into Fall Armyworm IPM**

**Ashley Tessnow**, Tyler Jay Raszick and Gregory A. Sword, Texas A&M University, College Station, TX

**2:45 PM A New Strategy to Block Aphid Transmission of Poleroviruses**

**Jennifer Wilson**, Cornell University, Ithaca, NY and Michelle L Heck, USDA ARS, Ithaca, NY

**COTTON INSECT RESEARCH & CONTROL CONF. - THURSDAY LATE AFTERNOON - MS STUDENT PAPER COMPETITION II**

*JW Grand Salon 6, 3:30 PM-5:30 PM*

**3:30 PM Management of Tarnished Plant Bug (*Lygus lineolaris*) Populations in Mississippi Cotton Production Systems**

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

**3:45 PM Susceptibility of Fall Armyworm (*Spodoptera frugiperda*) Genotypes Carrying Vip3A Resistant Alleles, to Bt Plants and Purified Bt Proteins.**

**Tyler Gilreath**, David Kerns and Fei Yang, Texas A&M University, College Station, TX

**4:00 PM The Impact of Brown Stinkbug, *Euschistus servus* on Vegetative Stage Field Corn Yield**

**William Hardman**<sup>1</sup>, Don Cook<sup>1</sup>, Jeff Gore<sup>1</sup>, Angus Catchot<sup>2</sup> and Brien Henry<sup>2</sup>, (1)Mississippi State University, Stoneville, MS, (2)Mississippi State University, Mississippi State, MS

**4:15 PM Bollworm (*Helicoverpa zea*) Damage and Behavior in Bt Cotton**

**Russ Godbold**, Mississippi State University, Department of Biochemistry, Molecular Biology, Entomology, and Plant Pathology, Starkville, MS

**4:30 PM Using High Throughput Sequencing to Link Cotton Fleahopper Gut Content to Host Plants**

**Kristin Lea Hamons**<sup>1</sup>, Lindsey C Perkin<sup>2</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

**4:45 PM Redbanded Stink Bug Management in Mississippi Soybean Production Systems**

**Jacob Smith**, Angus Catchot, Whitney Crow, Tyler B Towles, Brittany E. Lipsey, Ryan Mann and Dung Bao, Mississippi State University, Mississippi State, MS

**5:00 PM Mycotoxins Evaluation in Different Bt Corn Traits**

**Elias Zuchelli**<sup>1</sup>, Rachel Guyer<sup>1</sup>, Heather Kelly<sup>1</sup> and Scott D. Stewart<sup>2</sup>, (1)University of Tennessee, Jackson, TN, (2)The University of Tennessee, Jackson, TN

**5:15 PM Evaluating Currently Labeled Insecticides for Control of Tarnished Plant Bug in Arkansas Cotton**

**Adam Whitfield**<sup>1</sup>, Gus Lorenz<sup>2</sup>, Benjamin C Thrash<sup>3</sup>, Nick R. Bateman<sup>4</sup>, Nichole Taillon<sup>5</sup>, Andrew Plummer<sup>5</sup>, Kevin McPherson<sup>3</sup>, Wes Plummer<sup>1</sup> and Garrett Felts<sup>6</sup>, (1)UA-CES, Lonoke, AR, (2)The University of Arkansas, Lonoke, AR, (3)University of Arkansas, Lonoke, AR, (4)University of Arkansas - RREC, Stuttgart, AR, (5)University of Arkansas CES, Lonoke, AR, (6)University of Arkansas- RREC, Stuttgart, AR

**COTTON INSECT RESEARCH & CONTROL CONF. -  
THURSDAY LATE AFTERNOON - SESSION B**

*JW Grand Salon 1, 3:30 PM-5:30 PM*

**3:30 PM Identification of Cotton Fields Using Sentinel-2 Satellite Imagery for Boll Weevil Eradication**

**Chenghai Yang**, USDA-ARS, College Station, TX and Charles P.-C. Suh, USDA-ARS ICCDRU, College Station, TX

**3:45 PM Development of SNP-Based Diagnostic Tools for Boll Weevil Variant Identification**

**Tyler Jay Raszick**<sup>1</sup>, Raul Ruiz-Arce<sup>2</sup>, Charles P.-C. Suh<sup>3</sup>, Xanthe A. Shirley<sup>4</sup>, Theodore Boratynski<sup>5</sup> and Gregory A. Sword<sup>1</sup>, (1)Texas A&M University, College Station, TX, (2)USDA-APHIS, Edinburg, TX, (3)USDA-ARS ICCDRU, College Station, TX, (4)USDA-APHIS, College Station, TX, (5)United States Department of Agriculture, Calexico, CA

**4:00 PM Genome-Wide Markers Can Identify the Origin and Demography of Boll Weevil Re-Infestations: A Case Study from Kingsville, TX**

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

**4:15 PM Histopathological Effects of A Protein Complex Purified From *Xenorhabdus nematophila* on The Midgut of *Helicoverpa armigera* Larvae**

**Ziyan Nangong**<sup>1</sup>, Xiao-Xiao Guo<sup>2</sup>, Shuqin Liu<sup>2</sup>, Qing Yang<sup>3</sup>, Qin-Ying Wang<sup>2</sup> and Megha N. Parajulee<sup>1</sup>, (1)Texas A&M AgriLife Research Center, Lubbock, TX, (2)Hebei Agricultural University, Baoding, China, (3)Yangzhou University, Yangzhou, China

**4:30 PM Global Mechanisms of Bt Resistance in a Field Strain of the Cotton Bollworm, *Helicoverpa zea*: The Expected and Unexpected**

Roger D. Lawrie<sup>1</sup>, Jean Marcel Deguenon<sup>1</sup>, Loganathan Ponnusamy<sup>1</sup>, Dominic Reisig<sup>2</sup>, **R. Michael Roe**<sup>1</sup>, Alejandro Del Pozo-Valdivia<sup>3</sup>, Robert D. Mitchell III<sup>4</sup> and Ryan W Kurtz<sup>5</sup>, (1)North Carolina State University, Raleigh, NC, (2)North Carolina State University, Plymouth, NC, (3)University of California Cooperative Extension & UC Statewide IPM Program, Salinas, CA, (4)United States Department of Agriculture, Kerrville, TX, (5)Cotton Incorporated, Cary, NC

**4:45 PM Deadzone: A New Tool for Resistance Management in Cotton**

**Andrew Pedersen**<sup>1</sup>, Ally Lauria<sup>1</sup>, Randy Dodds<sup>1</sup> and David Stewart<sup>2</sup>, (1)Brandt Inc., Fresno, CA, (2)Imerys, Roswell, GA

**5:00 PM How to Achieve Better Chemical Control of Crop Pests and Minimize Pesticide Risk to Pollinators**

**Yu-Cheng Zhu**, USDA-ARS, Stoneville, MS

**5:15 PM Managing Early-Season Insect Pests of Dryland Cotton**

**Abdul Hakeem**<sup>1</sup>, Megha N. Parajulee<sup>1</sup>, Michael Toews<sup>2</sup>, Suhas Vyavhare<sup>3</sup>, Katie L. Lewis<sup>1</sup>, Donna McCallister<sup>4</sup> and Dol P. Dhakal<sup>5</sup>, (1)Texas A&M AgriLife Research and Extension Center, Lubbock, TX, (2)University of Georgia, Tifton, GA, (3)Texas A&M AgriLife Extension Service, Lubbock, TX, (4)Texas A&M AgriLife Research, Lubbock, TX, (5)Texas A&M AgriLife Research Center, Lubbock, TX

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

*JW Grand Salon 6, 5:30 PM-7:00 PM*

Thursday, January 9, 2020

# Cotton Quality Measurements Conference

**COTTON QUALITY MEASUREMENTS - THURSDAY LATE AFTERNOON**

*Room 406, 3:30 PM-5:00 PM*

**3:30 PM Stability of HVI Calibration Standards for Bundle Elongation Measurements**

**Eric F. Hequet** and Brendan Kelly, Texas Tech University, Lubbock, TX

**3:45 PM Preliminary Results of Inter-Laboratory HVI Elongation Calibration Trials**

**Christopher D. Delhom**<sup>1</sup>, Eric F. Hequet<sup>2</sup>, Brendan Kelly<sup>2</sup> and Vikki B. Martin<sup>3</sup>, (1)USDA-ARS, New Orleans, LA, (2)Texas Tech University, Lubbock, TX, (3)Cotton Incorporated, Cary, NC

**4:00 PM Capturing the Potential for Fiber Breakage during Industrial Processing**

**Brendan Kelly**<sup>1</sup>, Eric F. Hequet<sup>1</sup> and Joao Paulo Saraiva Morais<sup>2</sup>, (1)Texas Tech University, Lubbock, TX, (2)Embrapa Algodao, Campina Grande, Brazil

**4:15 PM Effects of Non-Lint Content and Processing on Heritability Estimates of Cotton Fiber Length Parameters**

Joao Paulo Saraiva Morais<sup>1</sup>, **Zach Hinds**<sup>2</sup>, Brendan Kelly<sup>2</sup> and Eric F. Hequet<sup>2</sup>, (1)Embrapa Algodao, Campina Grande, Brazil, (2)Texas Tech University, Lubbock, TX

**4:30 PM Cotton Uniformity Classification By Comprehensive Length Attributes**

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

**4:45 PM Composition and Biomolecule Distribution in Cotton Seed Coats Investigated By Fourier Transform Infrared Microspectroscopy**

**Tanjim Md Hossain**, Sumedha Liyanage and Nouredine Abidi, Fiber and Biopolymer Research Institute, Texas Tech University, Lubbock, TX

# Cotton Utilization Conference

**JOINT SESSION: COTTON UTILIZATION & QUALITY MEASUREMENT**

*Room 406, 10:30 AM-12:00 PM*

**10:30 AM Is Cotton Metal Content Affected By Environment and Does the Metal Content Affect Dyeability?**

**Chanel Angelique Fortier**, USDA, New Orleans, LA, Christopher D. Delhom, USDA-ARS, New Orleans, LA and Michael K. Dowd, USDA-ARS Southern Regional Research Center, New Orleans, LA

**10:45 AM Examination of Cotton Maturity Distribution Using FTIR Spectroscopy**

**Michael Santiago Cintron**<sup>1</sup>, Terri Von Hoven<sup>2</sup>, Doug Hinchliffe<sup>2</sup> and Rebecca Hron<sup>2</sup>, (1)USDA, New Orleans, LA, (2)USDA-ARS-SRRC, New Orleans, LA

**11:00 AM Use of ATR FT-IR Spectroscopy in Classifying Different Degree of Fiber Secondary Cell Wall Developments between Immature Fiber (*im*) Mutant and Texas Marker-1 (TM-1) Cotton Fibers**

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

**11:15 AM Variability of Fiber Length Uniformity**

**Mourad Krifa**, Kent State University, Kent, OH



**11:30 AM Silicone Treatments of Egyptian Cotton Single Jersey Fabrics Knitted with Different Yarn Types and Knitting Designs**  
**Alaa A Badr** and Ashraf El-Nahrawy, Alexandria University, Alexandria, Egypt

# Cotton Weed Science Research Conference

## COTTON WEED SCIENCE RESEARCH - THURSDAY EARLY MORNING

*Rooms 408-409, 8:10 AM-10:00 AM*

**8:10 AM Welcoming Remarks**

**8:15 AM Do Dicamba Volatility Reduction Agents Influence Weed Control?**

**Mason Castner**, Jason K. Norsworthy, Rodger B. Farr and Lawson Priess, University of Arkansas, Fayetteville, AR

**8:30 AM Economics and Efficacy of Weed Management in Bollgard II Xtendflex Cotton**

**Brice M. DeLong**, Texas A&M AgriLife, Lubbock, TX, J. Wayne Keeling, Texas A&M AgriLife Research and Extension Center, Lubbock, TX, Peter A. Dotray, Texas Tech University, Texas A&M AgriLife Research and Extension Service, Lubbock, TX and John Everitt, Bayer Cropsience, Shallowater, TX

**8:45 AM Evaluation of Integrated Weed Management Strategies for Weed Population Reduction**

**Rodger B. Farr**, Jason K Norsworthy, Lawson Priess and Mason Castner, University of Arkansas, Fayetteville, AR

**9:00 AM Evaluation of Tavium in a Cotton Herbicide Program**

**James W Beesinger**, Jason K. Norsworthy, Rodger B. Farr, Lawson Priess and Mason Castner, University of Arkansas, Fayetteville, AR

**9:15 AM Integrating Isoxaflutole into Cotton Weed Management**

**Joshua Daniel Joyner**, NC State University, Mount Olive, NC, Charlie Cahoon, North Carolina State University, Raleigh, NC, Andrew Cole Blythe, NC State University, Denver, NC, Zack Taylor, NC State University, Raleigh, NC and Guy D. Collins, NC State University, Rocky Mount, NC

**9:30 AM Optimizing Postemergence Options Using Dicamba, Glyphosate, and Glufosinate in Xtendflex Systems**

**Jake A Patterson**, Jason K. Norsworthy, Lawson Priess and Rodger B. Farr, University of Arkansas, Fayetteville, AR

**9:45 AM Evaluation of Palmer Amaranth Control Using Multiple Residual Herbicides Tank-Mixed with and without S-Metolachlor**

**Owen Wesley France**, University of Arkansas, Fayetteville, AR

## COTTON WEED SCIENCE RESEARCH - THURSDAY LATE MORNING

*Rooms 408-409, 10:30 AM-12:00 PM*

**10:30 AM Evaluating Time of Day Effects on Broadleaf Weed Control in Xtendflex Cotton**

**Jacob R Kalina**<sup>1</sup>, Tim L. Grey<sup>1</sup>, Chris B Corkern<sup>2</sup>, Nicholas T Basinger<sup>3</sup> and Donn G Shilling<sup>3</sup>, (1)University of Georgia, Tifton, GA, (2)Bayer Crop Sciences, Tifton, GA, (3)University of Georgia, Athens, GA

**10:45 AM Crop Tolerance and Weed Management Systems Utilizing Isoxaflutole in HPPD Tolerant Cotton**

**Delaney C. Foster**<sup>1</sup>, Peter A. Dotray<sup>2</sup>, Gregory Baldwin<sup>3</sup>, Corey N. Thompson<sup>4</sup> and Frederick T. Moore<sup>4</sup>, (1)Texas Tech University, Lubbock, TX, (2)Texas Tech University, Texas A&M AgriLife Research and Extension Service, Lubbock, TX, (3)BASF, Durham, NC, (4)BASF, Lubbock, TX

**11:00 AM Tarnished Plant Bug Infestations Influenced By Palmer Amaranth Impact Cotton Growth and Yield**

**Taylor M Randell**, Lavesta C. Hand, A. Stanley Culpepper and Phillip Roberts, University of Georgia, Tifton, GA

**11:15 AM Effects of Plant-Back Interval and Tillage on Cotton Tolerance to Warrant**

**Andrew Cole Blythe**, NC State University, Denver, NC, Charlie Cahoon, North Carolina State University, Raleigh, NC, Joshua Daniel Joyner, NC State University, Mount Olive, NC, Zack Taylor, NC State University, Raleigh, NC and Guy D. Collins, North Carolina State University, Rocky Mount, NC

**11:30 AM Evaluation of Cover Crops and Herbicide Programs for Weed Control in Cotton**

**Pratap Devkota**, UF/IFAS WFREC - Jay Research Center, Jay, FL and Michael J. Mulvaney, University of Florida, Jay, FL

**11:45 AM A Multiple Year Study Evaluating Cotton Tolerance to Metribuzin**

**Jeremy M. Kichler**, University of Georgia Cooperative Extension, Moultrie, GA and A. Stanley Culpepper, University of Georgia, Tifton, GA

**COTTON WEED SCIENCE RESEARCH - THURSDAY EARLY AFTERNOON**

*Rooms 408-409, 1:30 PM-3:00 PM*

**1:30 PM Effect of Nozzle Selection on Weed Control and Yield in Mississippi Cotton**

**Justin S Calhoun**, Connor Ferguson, Kayla Broster, Luke Merritt, Zachary Treadway and Michael Wesley, Mississippi State University, Mississippi State, MS

**1:45 PM Potential Discovery of 2,4-D Tolerance Among Interspecific Chromosome Substitution Lines of Upland Cotton**

**Loida M Perez**<sup>1</sup>, Sukumar Saha<sup>2</sup>, Johnnie N. Jenkins<sup>2</sup>, David M. Stelly<sup>3</sup>, Mark Shankle<sup>4</sup> and Te-Ming Paul Tseng<sup>1</sup>, (1)Mississippi State University, Mississippi State, MS, (2)USDA-ARS, Mississippi State, MS, (3)Texas A&M University System, College Station, TX, (4)Mississippi State University, Pontotoc, MS

**2:00 PM Cover Crops, Residual Herbicides, and Application Method Reduce Selection Pressure Potentially Delaying Dicamba Resistance in Palmer Amaranth**

**Lavesta C. Hand**<sup>1</sup>, Taylor M Randell<sup>1</sup>, Robert L. Nichols<sup>2</sup>, Larry Steckel<sup>3</sup> and A. Stanley Culpepper<sup>1</sup>, (1)University of Georgia, Tifton, GA, (2)Cotton Incorporated, Cary, NC, (3)University of Tennessee, Jackson, TN

**2:15 PM Effect of Herbicide Program, Spray Droplet Size, and Drift Reduction Agent Use on Glufosinate Efficacy**

**John J. Williams**, Darrin M. Dodds, Jacob P. McNeal, Bradley Norris, Lucas Xavier Franca and Steven D. Hall, Mississippi State University, Mississippi State, MS

**2:30 PM Off Target Movement of Enlist One + Liberty**

**Lawson Priess**, Jason K. Norsworthy and Mason Castner, University of Arkansas, Fayetteville, AR

**2:45 PM Dicamba-Tolerant Cotton Response to Low Rates of 2,4-D**

**Kyle Russell**<sup>1</sup>, Peter A. Dotray<sup>2</sup>, Irish Lorraine B Pabuayon<sup>3</sup> and Glen Ritchie<sup>3</sup>, (1)Texas A&M AgriLife Research, Lubbock, TX, (2)Texas Tech University, Texas A&M AgriLife Research and Extension Service, Lubbock, TX, (3)Texas Tech University, Lubbock, TX

Friday, January 10, 2020

# Cotton Agronomy, Physiology & Soil Conference

## COTTON AGRONOMY, PHYSIOLOGY & SOILS CONFERENCE - FRIDAY EARLY MORNING - SESSION A

*JW Grand Salon 5, 9:00 AM-10:00 AM*

**9:00 AM Initial Investigation of Cereal Rye and Hairy Vetch Cover Crops in Cotton Production Compared to Corn/Cotton Rotation**  
**Dr. M. Wayne Ebelhar** and Richard E. Turner, Mississippi State University, Stoneville, MS

**9:15 AM Soil Health Benefits in Long-Term Conservation Cotton Systems**  
**Paul DeLaune**, Partson Mubvumba, Charles Coufal and Anthony Pennartz, Texas A&M AgriLife Research, Vernon, TX

**9:30 AM Using System Approach to Evaluate the Cotton Production Practices to Improve the Efficiency**  
Yangxuan Liu, Extension Economists, Department of Agricultural & Applied Economics, Tifton, GA and **Mark Freeman**, Extension Agronomist, Department of Crop and Soil Sciences, Statesboro, GA

## COTTON AGRONOMY, PHYSIOLOGY & SOILS CONFERENCE - AWARDS

*JW Grand Salon 5, 10:30 AM-12:00 PM*

# Cotton Disease Council

## COTTON DISEASE COUNCIL - FRIDAY EARLY MORNING

*Rooms 211-212, 8:00 AM-10:00 AM*

**8:00 AM Inner Boll Rotting Bacteria Associated with Feeding By the Verde Plant Bug (*Creontiades signatus*)**  
**Enrique Gino Medrano**<sup>1</sup>, James P. Glover<sup>2</sup> and Michael J. Brewer<sup>2</sup>, (1)US-DA-ARS, College Station, TX, (2)Texas A&M AgriLife Research, Department of Entomology, Corpus Christi, TX

**8:15 AM Effects of Verticillium Wilt and Bacterial Blight on Commercial Varieties**  
**Terry A. Wheeler**, Texas A&M AgriLife Research, Lubbock, TX and Jane K Dever, Texas A&M AgriLife Research and Extension Center, Lubbock, TX

**8:30 AM Developing Recommendations for Management of Meloidogyne Incognita in Georgia**  
**Robert C. Kemerait**, University of Georgia, Tifton, GA, Jeremy M. Kichler, University of Georgia Cooperative Extension, Moultrie, GA, Calvin Perry, Superintendent, Stripling Irrigation Research Park, University of Georgia, Camilla, GA and Bobby J. Washington, University of Georgia, Camilla, GA

**8:45 AM Relative Reproduction of Southern Root-Knot Nematode on Root-Knot Nematode Susceptible and Resistant Cotton Varieties**  
**Michael T. Plumblee** and John Mueller, Clemson University, Blackville, SC

**9:00 AM Response of Nematode-Resistant Cotton Germplasm to Infection By Two Isolates of the Guava Root-Knot Nematode, *Meloidogyne enterolobii***  
**Martin J Wubben**<sup>1</sup>, Amanda G Gaudin<sup>1</sup>, William B Rutter<sup>2</sup>, Eric L Davis<sup>3</sup> and Johnie N. Jenkins<sup>1</sup>, (1)USDA-ARS, Mississippi State, MS, (2)USDA-ARS, Charleston, SC, (3)North Carolina State University, Raleigh, NC

**9:15 AM Evaluating the Efficacy of Fluopyram Seed Treatments and in-Furrow Nematicide Applications for Managing Reniform Nematode (*Rotylenchulus reniformis*) from 2016-2019 in North Florida**

**Zane J. Grabau**<sup>1</sup>, David L. Wright<sup>2</sup> and Ian Small<sup>2</sup>, (1)University of Florida, Gainesville, FL, (2)University of Florida, Quincy, FL

**9:30 AM Beltwide Nematode Research and Education Committee: Field Performance of Seed- and Soil-Applied Nematicides, 2019**

**Travis R. Faske**, University of Arkansas Division of Agriculture, Lonoke, AR, Thomas W. Allen, Mississippi State University, Delta Research and Extension Center, Stoneville, MS, Zane J. Grabau, University of Florida, Gainesville, FL, Jiahui Hu, University of Arizona, Tucson, AZ, Robert C. Kemerait, University of Georgia, Tifton, GA, Kathy S. Lawrence, Auburn University, Auburn, AL, Hillary L. Mehl, Virginia Tech Tidewater AREC, Suffolk, VA, John Mueller, Clemson University, Blackville, SC, Paul Price, Louisiana State University, Winnsboro, LA, Lindsey D. Thiessen, NC State University, Raleigh, NC and Terry A Wheeler, Texas A&M AgriLife Research and Extension Center, Lubbock, TX

**9:45 AM Management of Fusarium Wilt and Root Knot Nematode with Velumtotal and Propulse**

**Robert A Ballesteros** and Terry A. Wheeler, Texas A&M AgriLife Research, Lubbock, TX

**COTTON DISEASE COUNCIL - FRIDAY LATE MORNING**

*Rooms 211-212, 10:30 AM-12:00 PM*

**10:30 AM Screening Cotton Varieties for Reaction to Fusarium Wilt (race 1) in the Southern High Plains**

**Cecilia Monclova-Santana**, Texas A&M AgriLife Extension, Lubbock, TX and Terry A Wheeler, Texas A&M AgriLife Research, Lubbock, TX

**10:45 AM Influence of Planting Date, and Early-Season Soil and Weather Variables on Severity of Race 4 Fusarium Impacts on Cotton**

**Robert B Hutmacher**, University of California Cooperative Extension, Five Points, CA

**11:00 AM Practical Risk Prediction to Support Management and Variety Trials: Dealing with Variation in *Fusarium oxysporum* f. Sp. *Vasinfestum* Inoculum Density**

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

**11:15 AM Genotypic Evaluation of Current Field Populations of *Fusarium oxysporum* f. Sp. *Vasinfestum* Isolates from California**

**Margaret L. Ellis**<sup>1</sup>, Josue Diaz<sup>1</sup>, Jorge Garcia<sup>1</sup>, Celeste Lara<sup>1</sup>, Robert L. Nichols<sup>2</sup>, Mauricio Ulloa<sup>3</sup> and Robert B Hutmacher<sup>4</sup>, (1)California State University, Fresno, Fresno, CA, (2)Cotton Incorporated, Cary, NC, (3)USDA-ARS, PA, CSRL, Plant Stress and Germplasm Development Research, Lubbock, TX, (4) University of California, Shafter Research & Extension Center, Five Points, CA

**11:30 AM Fusarium Race-4 Upland Screening and Evaluation**

**Mike Olvey** and Jim Olvey, O&A Enterprises, Maricopa, AZ

**11:45 AM Fusarium Race-4 Screening and Testing Protocols**

**Jim Olvey** and Mike Olvey, O&A Enterprises, Maricopa, AZ

# Cotton Engineering-Systems Conference

**COTTON ENGINEERING SYSTEMS - FRIDAY EARLY MORNING**

*Room 401, 8:00 AM-9:30 AM*

**8:00 AM Current and Potential Robotic Applications to Improve Cotton Production**

**Edward M. Barnes**<sup>1</sup>, Gaylon Morgan<sup>1</sup>, Kater Hake<sup>1</sup>, Jon Devine<sup>1</sup>, Ryan W Kurtz<sup>1</sup>, Terry W Griffin<sup>2</sup>, Gregory Ibendahl<sup>2</sup>, Ajay Sharda<sup>2</sup>, Kadedghe Goodluck Fue<sup>3</sup>, Glen C. Rains<sup>3</sup>, Joe Mari J. Maja<sup>4</sup>, Marlowe Edgar C. Bruce<sup>4</sup>, J. Alex Thomasson<sup>5</sup>, James A. Griffin<sup>6</sup>, Emi Kimura<sup>7</sup>, Hussein Gharakhani<sup>5</sup>, Brian G. Ayre<sup>8</sup>, Sierra Young<sup>9</sup> and Mathew G. Pelletier<sup>10</sup>, (1)Cotton Incorporated, Cary, NC, (2)Kansas State University, Manhattan, KS, (3)University of Georgia, Tifton, GA, (4)Clemson University, Blackville, SC, (5)Texas A&M University, College Station, TX, (6)Texas A&M Cotton Extension, College Station, TX, (7)Texas A&M AgriLife Research and Extension Service, Vernon, TX, (8) University of North Texas, Denton, TX, (9)North Carolina State University, Raleigh, NC, (10)USDA-ARS Cotton Production and Processing Research Unit, Lubbock, TX

**8:15 AM Robotic Cotton Harvesting and Field-Ginning, Approaches and Challenges**

**Hussein Gharakhani** and J. Alex Thomasson, Texas A&M University, College Station, TX

**8:30 AM Using on-Farm Data to Enhance Variety Trial Recommendations**

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

**8:45 AM Evaluation of John Deere Module Weighing System for on Farm Research Trials**

**Jeremy M. Kichler**, University of Georgia Cooperative Extension, Moultrie, GA, Jared R. Whitaker, University of Georgia, Tifton, GA and Wesley M Porter, Assistant Professor, Department of Crop and Soil Sciences, Tifton, GA

**9:00 AM A Wireless Sensor Network for Sensor-Based Irrigation Automation of Cotton**

**Jose Payero**, Clemson University, Blackville, SC

**9:15 AM A Tool for Determining Seasonal Water Needs and Irrigation Requirements of Crops in South Carolina**

**Jose Payero**, Clemson University, Blackville, SC

# Cotton Ginning Conference

## COTTON GINNING - FRIDAY MORNING

*JW Grand Salon 3, 8:00 AM-11:00 AM*

**8:00 AM Update on Plastic Contamination Detection and Removal Research**

**Mathew G. Pelletier**<sup>1</sup>, Greg A. Holt<sup>2</sup>, John D. Wanjura<sup>1</sup>, Derek P. Whitelock<sup>3</sup>, Carlos B. Armijo<sup>3</sup>, Paul A. Funk<sup>3</sup> and Kevin Tran<sup>4</sup>, (1)USDA-ARS Cotton Production and Processing Research Unit, Lubbock, TX, (2)USDA ARS CPPRU, Lubbock, TX, (3)USDA-ARS Southwestern Cotton Ginning Research Laboratory, Mesilla Park, NM, (4)USDA-ARS, LUBBOCK, TX

**8:15 AM Field Evaluation of the VIPR™ System**

**Ross D. Rutherford**, Lummus Ag Technology, Lubbock, TX and Gabe J. Sweets, Bratney Companies, Des Moines, IA

**8:30 AM Evaluation of the Goldenlion Contamination Cleaner**

**Derek P. Whitelock**<sup>1</sup>, Carlos B. Armijo<sup>1</sup>, Mathew G. Pelletier<sup>2</sup>, Paul A. Funk<sup>1</sup>, Greg A. Holt<sup>2</sup>, John D. Wanjura<sup>2</sup>, Neha Kothari<sup>3</sup> and Vikki B. Martin<sup>3</sup>, (1) USDA-ARS Southwestern Cotton Ginning Research Laboratory, Mesilla Park, NM, (2)USDA-ARS Cotton Production and Processing Research Unit, Lubbock, TX, (3)Cotton Incorporated, Cary, NC

**8:45 AM Round Modules: Handling Logistics and Cover Damage**

**Tianyi Wang**<sup>1</sup>, Robert G. Hardin<sup>1</sup>, Jason K Ward<sup>2</sup> and John D. Wanjura<sup>3</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

**9:00 AM Plastic Removal at the Module Feeder**

**Kalin Clark** and Robert G. Hardin, Texas A&M University, College Station, TX

**9:15 AM Application of UAV Remote Sensing for Detecting Plastic Contaminants in Cotton Fields**

**Pappu Kumar Yadav**<sup>1</sup>, Emma L. White<sup>1</sup>, J. Alex Thomasson<sup>1</sup>, Thiago Marconi<sup>1</sup>, Juan Enciso<sup>2</sup> and Uriel Cholula<sup>1</sup>, (1)Texas A&M University, College Station, TX, (2)Texas A&M AgriLife Research, Weslaco, TX

**9:30 AM Findings of an Investigation into the Removal of Plastic Wrap during Ginning and Textile Processing**

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

**9:45 AM New Additions to Cherokee's Product Line**

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

**10:00 AM New Lummus Centurion™ Series Saw Gin**

**Mark D. Cory**, Lummus Ag Technology, Savannah, GA

**10:15 AM Keep Your Temp Cables from Moving and Better Seed Management**

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

**10:30 AM Progress Report in Development of Air-Bar Lint Cleaner**

**Ruixiu Sui**, USDA-ARS, Stoneville, MS

**10:45 AM Student Paper Awards**

**Christopher D. Delhom**, USDA-ARS, New Orleans, LA

# Cotton Improvement Conference

## COTTON IMPROVEMENT - GENETIC DIVERSITY AND BREEDING PROGRAMS

*Brazos, 8:00 AM-9:50 AM*

**8:00 AM Genetic Diversity of *Gossypium hirsutum***

**Joshua Udall**<sup>1</sup>, Jonathan Wendel<sup>2</sup>, Doajun Yuan<sup>2</sup>, Corrinne Grover<sup>2</sup>, Justin L Conover<sup>2</sup> and Thiru Ramaraj<sup>3</sup>, (1)USDA-ARS, College Station, TX, (2)Iowa State University, Ames, IA, (3)NCGR, Santa Fe, NM

**8:15 AM Understanding the Natural Qualitative Trait Relationships between Pima and Upland Cotton in the National Cotton Germplasm Collection**

**Amanda M. Hulse-Kemp**<sup>1</sup>, Daniel Restrepo-Montoya<sup>2</sup>, Lori Hinze<sup>3</sup>, Jodi Scheffler<sup>4</sup>, Janna Love<sup>3</sup>, Richard Percy<sup>3</sup>, Don Jones<sup>5</sup>, Candace Haigler<sup>2</sup> and James Frelichowski<sup>3</sup>, (1)USDA-ARS, Raleigh, NC, (2)North Carolina State University, Raleigh, NC, (3)USDA-ARS, College Station, TX, (4)USDA-ARS, Stoneville, MS, (5)Cotton Incorporated, Cary, NC

**8:30 AM Perspectives from 50 Years of Breeding Cotton**

**Fred M. Bourland**, University of Arkansas-NEREC, Keiser, AR

**8:45 AM Identifying Accessions and Management Practices for the Potential Production of Pima Cotton in South Carolina**

**Sarah K. Holladay**<sup>1</sup>, Michael A. Jones<sup>1</sup> and B. Todd Campbell<sup>2</sup>, (1)Clemson University, Florence, SC, (2)USDA-ARS, Florence, SC

**9:00 AM Genetic Evaluation of Cotton Breeding Resources from the Pee Dee Germplasm Enhancement Program**

**Grant T. Billings**<sup>1</sup>, Michael A. Jones<sup>1</sup>, William C. Bridges<sup>2</sup>, Amanda M. Hulse-Kemp<sup>3</sup> and B. Todd Campbell<sup>4</sup>, (1)Clemson University, Florence, SC, (2)Clemson University, Clemson, SC, (3)USDA-ARS, Raleigh, NC, (4)USDA-ARS, Florence, SC

**9:15 AM Breeding Cotton for Organic Production**

**Martin Costa**<sup>1</sup>, Jane K Dever<sup>2</sup> and Steve Hague<sup>1</sup>, (1)Texas A&M University, College Station, TX, (2)Texas A&M AgriLife Research, Lubbock, TX

**9:30 AM How Can Cottongen Help in Cotton Improvement?**

**Jing Yu**<sup>1</sup>, Sook Jung<sup>1</sup>, Chun-Huai Cheng<sup>1</sup>, Taein Lee<sup>1</sup>, Ping Zheng<sup>1</sup>, Jodi Humann<sup>1</sup>, Don Jones<sup>2</sup>, B. Todd Campbell<sup>3</sup>, Joshua Udall<sup>4</sup> and Dorrie Main<sup>1</sup>, (1) Washington State University, Pullman, WA, (2)Cotton Incorporated, Cary, NC, (3)USDA-ARS, Florence, SC, (4)USDA-ARS, College Station, TX

**COTTON IMPROVEMENT - FIBER QUALITY**

*Brazos, 10:00 AM-11:50 AM*

**10:00 AM Studying the Negative Relationship between Yield and Fiber Quality**

**B. Todd Campbell**, USDA-ARS, Florence, SC

**10:15 AM Genome-Wide Quantitative Trait Loci Reveal the Genetic Basis of Cotton Fiber Quality and Yield-Related Traits in a *G. hirsutum* Recombinant Inbred Line Population**

**Youlu Yuan**, Institute of Cotton Research, Chinese Academy of Agricultural Sciences, Anyang, China

**10:30 AM Application of Cottonscope for Determining Fiber Maturity and Fineness of an Upland Cotton Genetic Population.**

**Hee Jin Kim**<sup>1</sup>, Christopher D. Delhom<sup>2</sup>, David D. Fang<sup>3</sup>, Linghe Zeng<sup>4</sup>, Johnnie N. Jenkins<sup>5</sup>, Jack C. McCarty<sup>5</sup> and Don Jones<sup>6</sup>, (1)USDA-ARS, Southern Regional Research Center, New Orleans, LA, (2)USDA-ARS Southern Regional Research Center, New Orleans, LA, (3)Cotton Fiber Bioscience Research Unit, USDA-ARS-SRRC, New Orleans, LA, (4)USDA-ARS, Stoneville, MS, (5) USDA-ARS, Mississippi State, MS, (6)Cotton Incorporated, Cary, NC

**10:45 AM Stability, Variation, and Application of AFIS Fiber Length Distributions**

**Zach Hinds**, Brendan Kelly and Eric F. Hequet, Texas Tech University, Lubbock, TX

**11:00 AM Evaluation of Short-Term and Long-Term Stability of HVI Fibrograms**

**Addisu Ferede Tesema**, Brendan Kelly and Eric F. Hequet, Texas Tech University, Lubbock, TX

**11:15 AM Establishment and Validation of the Correction Procedure for the Fibrogram Measurements across Different HVIs**

**Md Abu Sayeed**, Eric F. Hequet and Brendan Kelly, Texas Tech University, Lubbock, TX

**11:30 AM An EMS-Induced Mutation in a Tetratricopeptide Repeat-like Superfamily Protein Gene (*Ghir\_A12G008870*) on Chromosome A12 Is Responsible for the L<sub>iy</sub> Short Fiber Phenotype in Cotton**

**David D. Fang**<sup>1</sup>, Marina Naoumkina<sup>1</sup>, Gregory N. Thyssen<sup>1</sup>, Efrem Bechere<sup>2</sup>, Ping Li<sup>1</sup> and Christopher Florane<sup>1</sup>, (1)Cotton Fiber Bioscience Research Unit, USDA-ARS-SRRC, New Orleans, LA, (2)USDA-ARS, Stoneville, MS

**COTTON IMPROVEMENT - BUSINESS MEETING**

*Brazos, 11:50 AM-12:00 PM*

# Cotton Insect Research and Control Conference

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

*JW Grand Salon 1, 8:00 AM-10:30 AM*

### **8:00 AM Development of Biological Control Informed Thresholds for Management of Whitefly in Cotton**

**Steve Naranjo**, USDA-ARS, Maricopa, AZ, Tim Vandervoet, Plant & Food Research Limited, Havelock North 4130, New Zealand and Peter C Ellsworth, University of Arizona, Maricopa, AZ

### **8:15 AM Landscape-Scale Consequences of Nutritional Variation for the Management of Helicoverpa Zea in Corn and Cotton across the Growing Season.**

**Gregory A. Sword**<sup>1</sup>, Carrie Deans<sup>2</sup>, Joseph Black<sup>1</sup>, Ashley Tessnow<sup>1</sup> and Spencer Behmer<sup>1</sup>, (1)Texas A&M University, College Station, TX, (2)University of Minnesota, St. Paul, MN

### **8:30 AM Cotton Fleahopper Injury to Commercial Cottons Differing in Leaf Pubescence**

**Michael J. Brewer**<sup>1</sup>, Stephen Biles<sup>2</sup> and Darwin Anderson<sup>1</sup>, (1)Texas A&M AgriLife Research, Department of Entomology, Corpus Christi, TX, (2)Texas A&M AgriLife Extension Service, Port Lavaca, TX

### **8:45 AM Monitoring of Silverleaf Whitefly Populations in Georgia: Results of a Two Year Study**

**Apurba K Barman**, Phillip Roberts, Alton N Sparks and Michael Toews, University of Georgia, Tifton, GA

### **9:00 AM Reducing Control Costs for Tarnished Plant Bug in Mid-South Cotton: Practical Opportunities Using Management Zones**

**Tina Gray Teague**, Ark State Univ / Univ Ark Exp Sta, State University, AR

### **9:15 AM Current Susceptibilities of Bollworms from the Mississippi Delta to a Diamide Insecticide**

**Kerry Clint Allen** and Nathan S. Little, USDA-ARS SIMRU, Stoneville, MS

### **9:30 AM Isoclast for Insect Management in Western Cotton**

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

### **9:45 AM Managing Thrips in Mid-South Cotton**

**Don Cook**<sup>1</sup>, Scott D. Stewart<sup>2</sup>, Jeff Gore<sup>1</sup>, Gus Lorenz<sup>3</sup>, Angus Catchot<sup>4</sup>, David Kerns<sup>5</sup>, Sebe Brown<sup>6</sup>, Glenn Studebaker<sup>7</sup>, Nick R. Bateman<sup>8</sup>, Whitney Crow<sup>1</sup> and Benjamin C Thrash<sup>9</sup>, (1)Mississippi State University, Stoneville, MS, (2) The University of Tennessee, Jackson, TN, (3)The University of Arkansas, Lonoke, AR, (4)Mississippi State University, Mississippi State, MS, (5)Texas A&M University, College Station, TX, (6)LSU AgCenter, Winnsboro, LA, (7)University of Arkansas, Keiser, AR, (8)University of Arkansas - RREC, Stuttgart, AR, (9)University of Arkansas, Lonoke, AR

### **10:00 AM Effect of Nitrogen Fertility Rates on Cotton Crop Response to Simulated Cotton Fleahopper Damage**

**Megha N. Parajulee**, Dol P. Dhakal, Abdul Hakeem, Ziyang Nangong, Katie L. Lewis and James P. Bordovsky, Texas A&M AgriLife Research Center, Lubbock, TX



Friday, January 10, 2020

**COTTON INSECT RESEARCH & CONTROL CONFERENCE -  
FRIDAY EARLY MORNING -SESSION A**

*JW Grand Salon 6, 8:00 AM-10:30 AM*

**8:00 AM Insect Damage and Economic Yield Loss in Cotton**

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

**8:15 AM Plant Bug Efficacy over Time in the Midsouthern US**

**Benjamin C Thrash**<sup>1</sup>, Gus Lorenz<sup>2</sup>, Nick R. Bateman<sup>3</sup>, Nichole Taillon<sup>4</sup>, Andrew Plummer<sup>4</sup>, Kevin McPherson<sup>1</sup> and Garrett Felts<sup>5</sup>, (1)University of Arkansas, Lonoke, AR, (2)The University of Arkansas, Lonoke, AR, (3)University of Arkansas - RREC, Stuttgart, AR, (4)University of Arkansas CES, Lonoke, AR, (5)University of Arkansas- RREC, Stuttgart, AR

**8:30 AM Effectiveness of Insecticide Oversprays for Control of Bollworm and Stink Bugs on Bt Cotton Technology in the Southeastern USA**

**Jeremy Greene**<sup>1</sup>, Francis Reay-Jones<sup>2</sup>, Dominic Reisig<sup>3</sup>, Phillip Roberts<sup>4</sup>, Michael Toews<sup>4</sup> and Ron Smith<sup>5</sup>, (1)Clemson University, Blackville, SC, (2)Clemson University, Florence, SC, (3)North Carolina State University, Plymouth, NC, (4)University of Georgia, Tifton, GA, (5)Auburn University, Auburn, AL

**8:45 AM Sefina Insecticide: A New Insecticide for Piercing-Sucking Insect Management in Cotton**

**Christa Eilers-Kirk**, BASF, RTP, NC, Adam Hixson, BASF, Lubbock, TX and David Kerns, Texas A&M University, College Station, TX

**9:00 AM Counting Predators and Using Biological Control Informed Thresholds for Sustainable Management of Whiteflies in Cotton**

**Peter C Ellsworth**<sup>1</sup>, Steve Naranjo<sup>2</sup>, Naomi M. Pier<sup>1</sup>, Isadora Bordini<sup>1</sup> and Tim Vandervoet<sup>3</sup>, (1)University of Arizona, Maricopa, AZ, (2)USDA-ARS, Maricopa, AZ, (3)Plant & Food Research Limited, Havelock North 4130, New Zealand

**9:15 AM Developing a Cotton-Based Method for Bt Resistance Monitoring**

**Dominic Reisig**, North Carolina State University, Plymouth, NC, Jeremy Greene, Clemson University, Blackville, SC, Silvana Paula-Moraes, University of Florida, Jay, FL, Francis Reay-Jones, Clemson University, Florence, SC, Ron Smith, Auburn University, Auburn, AL, Sally Taylor, Virginia Tech University, Suffolk, VA, Arun Babu, North Carolina State University, Raleigh, NC and Mohammad-Amir Aghaee, Bayer Crop Science, Union City, TN

**9:30 AM Bt Resistance and Bt Technology Performance for Texas and the Mid-South in 2019**

**David Kerns**<sup>1</sup>, Fei Yang<sup>1</sup>, Don Cook<sup>2</sup>, Jeff Gore<sup>2</sup>, Scott D. Stewart<sup>3</sup>, Gus Lorenz<sup>4</sup>, Angus Catchot<sup>5</sup> and Sebe Brown<sup>6</sup>, (1)Texas A&M University, College Station, TX, (2)Mississippi State University, Stoneville, MS, (3)The University of Tennessee, Jackson, TN, (4)The University of Arkansas, Lonoke, AR, (5)Mississippi State University, Mississippi State, MS, (6)LSU AgCenter, Winnsboro, LA

**9:45 AM F2 Screen for Vip3Aa Resistance in Field Populations of Helicoverpa Zea (Boddie) (Lepidoptera: Noctuidae) in Texas, USA**

**Fei Yang**, José C González and David Kerns, Texas A&M University, College Station, TX

# Cotton Weed Science Research Conference

**COTTON WEED SCIENCE RESEARCH - GRADUATE STUDENT AWARDS**

*Rooms 402-403, 10:00 AM-10:30 AM*

Wednesday, January 8, 2020, 8:00 AM - 8:00 PM

Thursday, January 9, 2020, 8:00 AM - 10:00 PM

Friday, January 10, 2020, 8:00 AM - 12:00 PM

# TECHNICAL CONFERENCES POSTER BOARD SESSION

## JW Grand Salons 7-8

COTTON ECONOMICS AND MARKETING CONFERENCE POSTERS  
WILL BE ON DISPLAY IN JW GRAND SALON 4

### Cotton Agronomy, Physiology & Soil Conference Posters

1. **Mutant Gene Could Change Our Understanding of Cellulose Biosynthesis: Fuel, Food, and Fiber- Investigating the Physiological Responses in Arabidopsis FKF1 Mutant**  
**Gabriella Hale**, Ning Yuan, Vimal Kumar Balasubramanian, Kirby Luth, Glen Ritchie and Venugopal Mendu, Texas Tech University, Lubbock, TX
2. **Use of Phosphite As a Fertilizer for Transgenic Cotton**  
**Ariel A Szogi**, USDA-ARS, Florence, SC and Kater Hake, Cotton Incorporated, Cary, NC
3. **Efficacy of Recovery Sprays to Auxin Injured Cotton**  
**James A. Griffin**, Texas A&M Cotton Extension, College Station, TX, Gaylon Morgan, Texas A&M AgriLife Extension Service, College Station, TX, Seth A. Byrd, Oklahoma State University, Stillwater, OK and Glen Ritchie, Texas Tech University, Lubbock, TX
4. **Effect of Morphological Factors on the Success of Cotton Boll Opening**  
**Cayden B. Catlin**, Bradley R. Wilson and Seth A. Byrd, Oklahoma State University, Stillwater, OK
5. **Planting Cotton into Crimson Clover Cover Crop**  
**Shannon Koss**, North Carolina State University, Raleigh, NC, Charlie Cahoon, North Carolina State University, Raleigh, NC and S. Chris Reberg-Horton, NC State University, Raleigh, NC
6. **Impact of Soil Acidity on Cotton Growth and Yield**  
**Raedan L Sharry**, Brian Arnall, Seth A. Byrd, Vaughn L Reed, Bronc Finch, Michaela Smith and Joao Bigatao Souza, Oklahoma State University, Stillwater, OK
7. **Impacts of Leaf and Bract Pubescence on Fiber Quality of Normal and Okra Leaf Cotton**  
**Bradley R. Wilson**<sup>1</sup>, Seth A. Byrd<sup>1</sup>, Jane K Dever<sup>2</sup> and Carol Mason Kelly<sup>3</sup>, (1)Oklahoma State University, Stillwater, OK, (2)Texas A&M AgriLife Research and Extension Center, Lubbock, TX, (3)Texas A&M AgriLife Research, Lubbock, TX
8. **Management of Volunteer Cotton with Duplosan™**  
**Dale A. Mott**, Texas A&M AgriLife Extension Service, College Station, TX and Josh McGinty, Texas A&M AgriLife Extension Service, Corpus Christi, TX
9. **Replicated Agronomic Cotton Evaluation (RACE) Trial in the Rolling Plains of Texas-2019**  
**Jonathan H. Ramirez**, Emi Kimura and T. Royer, Texas A&M AgriLife Research and Extension Service, Vernon, TX

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10. **Poultry Litter and Cover Crop Integration into No-till Cotton on Upland Soil**  
**Ardeshir Adeli**<sup>1</sup>, John Brooks<sup>1</sup>, Read Read<sup>1</sup>, Shankle Shankle<sup>2</sup> and Johnie N. Jenkins<sup>1</sup>, (1)USDA-ARS, Mississippi State, MS, (2) Mississippi State University, Pontotoc, MS
11. **Evaluation of Insecticidal Soap As Deer Repellent in SC Cotton**  
**Julianna B. Corbin**<sup>1</sup>, Kendall R. Kirk<sup>1</sup>, Jeremy Greene<sup>1</sup>, Cory Heaton<sup>2</sup> and Michael T. Plumblee<sup>1</sup>, (1)Clemson University, Blackville, SC, (2)Clemson University, Columbia, SC
12. **Evaluation of Variable Rate Seeding in Cotton**  
**Michael T. Plumblee** and Kendall R. Kirk, Clemson University, Blackville, SC
13. **County Standard Testing of Cultivars in Tennessee**  
**Lindsay Stephenson**<sup>1</sup>, Ryan Blair<sup>2</sup>, Philip Shelby<sup>3</sup>, Jake Mallard<sup>2</sup>, Freeman Brown<sup>2</sup> and Tyson B Raper<sup>2</sup>, (1)University of Tennessee, Brownsville, TN, (2)University of Tennessee, Jackson, TN, (3) University of Tennessee, Trenton, TN
14. **Effectiveness of Planter Row Cleaners and Press Wheels to Process Large Quantities of Biomass**  
**Tyson B Raper**, Freeman Brown, Savana D Denton, Ryan Blair and Cheyenne Williams, University of Tennessee, Jackson, TN
15. **2019 Texas Upper Gulf Coast Replicated Agronomic Cotton Evaluation (RACE) - Trial Summary**  
**Dale A. Mott**, Texas A&M AgriLife Extension Service, College Station, TX and Gaylon Morgan, Cotton Incorporated, Cary, NC
16. **Cotton Response to Varied Rates of Poultry Litter and Urea**  
**Freeman Brown**<sup>1</sup>, Tyson B Raper<sup>1</sup>, Matthew Drake Davis<sup>1</sup>, Savana D Denton<sup>1</sup>, Cheyenne Williams<sup>1</sup>, Angela McClure<sup>1</sup> and Shawn Hawkins<sup>2</sup>, (1)University of Tennessee, Jackson, TN, (2)University of Tennessee, Knoxville, TN
17. **Days and DD60s to Key Growth Stages in Varying Maturity Cultivars**  
**Cheyenne Williams**, University of Tennessee, Jackson, TN
18. **Impact of Cover Crop Termination Timing and Method on Cotton Production Systems**  
**Savana D Denton**, Tyson B Raper, Cheyenne Williams and Freeman Brown, University of Tennessee, Jackson, TN
19. **Effect of Cotton Seed Size and Seeding Rate on Cotton Growth, Development and Yield**  
**Steven D. Hall**<sup>1</sup>, Darrin M. Dodds<sup>1</sup>, Bradley Norris<sup>1</sup>, William J Rutland<sup>1</sup>, Jacob P. McNeal<sup>1</sup>, John J. Williams<sup>1</sup> and Tyson B Raper<sup>2</sup>, (1)Mississippi State University, Mississippi State, MS, (2)University of Tennessee, Jackson, TN
20. **Evaluation of Nitrogen Management with ESN-Urea-UAN Combinations for Optimum Irrigated Continuous Cotton**  
**Dr. M. Wayne Ebelhar** and Richard E. Turner, Mississippi State University, Stoneville, MS
21. **Evaluating Seedling Vigor of Current and Emerging Cotton Cultivars**  
**Calvin D Meeks**, University of Missouri, Portageville, MO

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22. **Cotton Variety Response to Varying Rates of Nitrogen in Mississippi**  
**Bradley Norris**, Darrin M. Dodds, William J Rutland, Steven D. Hall, Jacob P. McNeal, John J. Williams and Chase A. Samples, Mississippi State University, Mississippi State, MS
23. **2019 Cotton Seeding Rate By Row Spacing Evaluation in Northeast Texas**  
**Brad Voss**<sup>1</sup>, Curtis A. Jones<sup>1</sup> and David R. Drake<sup>2</sup>, (1)Texas A&M University-Commerce, Commerce, TX, (2)Texas A&M AgriLife Extension Service, Commerce, TX
24. **On-Farm Evaluation of Reduced Cotton Seeding Rates in a Mid-South System Incorporating a Cereal Rye Winter Cover Crop with Different Termination Timing**  
**Tina Gray Teague**<sup>1</sup>, Andrew J. Baker<sup>2</sup>, Jessica Krob<sup>3</sup> and John W. Nowlin<sup>1</sup>, (1)Ark State Univ / Univ Ark Exp Sta, State University, AR, (2)Univ Ark System Division of Agriculture, State University, AR, (3)Arkansas State University, State University, AR
25. **Early-Season Morphological and Physiological Responses of Cotton Genotypes to Reniform Nematode and Soil Nitrogen**  
**Bhupinder Singh**<sup>1</sup>, Daryl Chastain<sup>1</sup>, K. Raja Reddy<sup>2</sup>, Jason Krutz<sup>1</sup>, John L. Snider<sup>3</sup> and Sally Stetina<sup>4</sup>, (1)Mississippi State University, Stoneville, MS, (2)Mississippi State University, Starkville, MS, (3) University of Georgia, Tifton, GA, (4)USDA-ARS, Stoneville, MS
26. **Intensive Spatial Data Characterization: Spatial Data Relationships in Cotton Production**  
Kendall R. Kirk, **Brennan E. Teddy**, Michael T. Plumblee, John Mueller, Jeremy Greene and Benjamin B. Fogle, Clemson University, Blackville, SC
27. **Impact of Various Potassium Application Rates on Cotton Varieties Under Irrigated and Dryland Conditions**  
**William J Rutland**, Darrin M. Dodds, Bradley Norris, Steven D. Hall, Jacob P. McNeal, John J. Williams and Chase A. Samples, Mississippi State University, Mississippi State, MS
28. **Evaluation of Foliar Fertilizers in Cotton for Plant Growth, Yield, and Fiber Quality**  
**Joshua M Doria**, Texas A&M AgriLife Research, College Station, TX, Julie A. Howe, Texas AgriLife Research, College Station, TX, Katie L. Lewis, Texas A&M AgriLife Research and Extension Center, Lubbock, TX, Seth A. Byrd, Oklahoma State University, Stillwater, OK and Gaylon Morgan, Cotton Incorporated, Cary, NC
29. **Influence of Harvest Aid Strategy on Fiber Quality in the Oklahoma Panhandle**  
**Seth A. Byrd**<sup>1</sup>, Bradley R. Wilson<sup>1</sup>, Cayden B. Catlin<sup>1</sup> and Cameron Murley<sup>2</sup>, (1)Oklahoma State University, Stillwater, OK, (2) Oklahoma State University, Goodwell, OK
30. **Resource Partitioning in Cotton: Three Decades Later**  
**Irish Lorraine B Pabuayon**<sup>1</sup>, Katie L. Lewis<sup>2</sup> and Glen Ritchie<sup>1</sup>, (1)Texas Tech University, Lubbock, TX, (2)Texas A&M AgriLife Research and Extension Center, Lubbock, TX
31. **Cotton Variety Evaluation during 2019 in Northeast Texas**  
**David R. Drake**, Texas A&M AgriLife Extension Service, Commerce, TX

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32. **Evaluation of Foliar Fertilizers in Louisiana Cotton**  
**Melanie Nettekville**<sup>1</sup>, Owen Clark<sup>2</sup>, Ana P Campos<sup>1</sup>, Peters Egbedi<sup>1</sup> and Josh T Copes<sup>2</sup>, (1)Louisiana State University, Saint Joseph, LA, (2)LSU AgCenter, Saint Joseph, LA
33. **Evaluation of Late Season Nitrogen and Potassium Fertilizer Applications in Louisiana Cotton**  
**Owen Clark**<sup>1</sup>, Melanie Nettekville<sup>2</sup>, Ana P Campos<sup>2</sup>, Peters Egbedi<sup>2</sup> and Josh T Copes<sup>1</sup>, (1)LSU AgCenter, Saint Joseph, LA, (2) Louisiana State University, Saint Joseph, LA
34. **Evaluation of 10-34-0 Fertilizer Applied in-Furrow in Louisiana Cotton Production**  
**Peters Egbedi**<sup>1</sup>, Ana P Campos<sup>1</sup>, Owen Clark<sup>2</sup>, Melanie Nettekville<sup>1</sup> and Josh T Copes<sup>2</sup>, (1)Louisiana State University, Saint Joseph, LA, (2)LSU AgCenter, Saint Joseph, LA
35. **Amending Two Different Soil Types with Biochar: Do Row Crops Benefit from Biochar?**  
**Avat Shekoofa**, University of Tennessee, Jackson, TN
36. **Reevaluation of Replanting Recommendations for NC Cotton**  
**Enrique E Pena Martinez**<sup>1</sup>, Guy D. Collins<sup>2</sup> and Jason K Ward<sup>1</sup>, (1) North Carolina State University, Raleigh, NC, (2)North Carolina State University, Rocky Mount, NC
37. **Evaluating Growth Characteristics of Modern Cotton Varieties in North Carolina**  
**Carrie Ortel**, NC State University, Greenville, NC, Guy D. Collins, North Carolina State University, Rocky Mount, NC, Keith L. Edmisten, North Carolina State University, Raleigh, NC, Craig Ellison, NC State University, Jackson, NC, Lance Grimes, NC State University, Williamston, NC, Jarette Hurry, NC State University, Windsor, NC and Arthur Whitehead, NC State University, Halifax, NC
38. **Cotton Seedling Vigor As Affected By First True Leaf Physiology Under Different Field Conditions**  
**Gurpreet Virk**, John L. Snider and Cristiane Pilon, University of Georgia, Tifton, GA
- 38a. **Evaluation of Variety Performance with Regard to Bollworm Management in NC - MOVED TO POSTER SESSION**  
**Guy D. Collins**<sup>1</sup>, Anders S. Huseeth<sup>2</sup>, Kristen A. Hopperstad<sup>3</sup>, Dominic Reisig<sup>4</sup>, Keith L. Edmisten<sup>2</sup> and Charlie Cahoon<sup>2</sup>, (1)NC State University, Rocky Mount, NC, (2)North Carolina State University, Raleigh, NC, (3)NC State University, Raleigh, NC, (4)North Carolina State University, Plymouth, NC

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## Cotton Disease Council Posters

39. **Cotton Disease Loss Estimate Committee Report, 2019.**  
**Kathy S. Lawrence**<sup>1</sup>, Austin Hagan<sup>1</sup>, Randy Norton<sup>2</sup>, Jiahuai Hu<sup>3</sup>, Travis R. Faske<sup>4</sup>, Robert B. Huttmacher<sup>5</sup>, John Muller<sup>6</sup>, Ian Small<sup>7</sup>, Zane J. Grabau<sup>8</sup>, Robert C. Kemeraït<sup>9</sup>, Paul Price<sup>10</sup>, Thomas W. Allen<sup>11</sup>, Sam Atwell<sup>12</sup>, John Idowu<sup>13</sup>, Lindsey D. Thiessen<sup>14</sup>, Seth A. Byrd<sup>15</sup>, Jerry Goodson<sup>16</sup>, Heather Kelly<sup>17</sup>, Terry Wheeler<sup>18</sup>, Thomas Isakeit<sup>19</sup> and Hillary L. Mehl<sup>20</sup>, (1)Auburn University, Auburn, AL, (2)University of Arizona, Safford, AZ, (3)University of Arizona, Tucson, AZ, (4)University of Arkansas Division of Agriculture, Lonoke, AR, (5)University of California Cooperative Extension, Shafter, CA, (6)Clemson University, Blackville, SC, (7)University of Florida, Quincy, FL, (8)University of Florida, Gainesville, FL, (9) University of Georgia, Tifton, GA, (10)Louisiana State University, Winnsboro, LA, (11)Mississippi State University, Delta Research and Extension Center, Stoneville, MS, (12)University of Missouri, New Madrid, MO, (13)New Mexico State University, Las Cruces, NM, (14)NC State University, Raleigh, NC, (15)Oklahoma State University, Stillwater, OK, (16)OSU Southwest Research and Extension Center, Altus, OK, (17)University of Tennessee, Jackson, TN, (18)Texas A&M AgriLife Research and Extension Center, Lubbock, TX, (19)Texas A&M University, College Station, TX, (20) Virginia Tech Tidewater AREC, Suffolk, VA
40. **Report of the Cottonseed Treatment Committee for 2019**  
**Rachel R. Guyer**<sup>1</sup>, Shelly Neill Pate<sup>1</sup>, Thomas W. Allen<sup>2</sup>, P. D. Colyer<sup>3</sup>, Thomas Isakeit<sup>4</sup>, Robert C. Kemeraït<sup>5</sup>, Kathy S. Lawrence<sup>6</sup>, Hillary L. Mehl<sup>7</sup>, Paul Price<sup>8</sup>, Alejandro Rojas<sup>9</sup>, Lindsey D. Thiessen<sup>10</sup>, Tessie H. Wilkerson<sup>11</sup> and Heather Kelly<sup>1</sup>, (1)University of Tennessee, Jackson, TN, (2)Mississippi State University, Delta Research and Extension Center, Stoneville, MS, (3)LSU AgCenter, Bossier City, LA, (4)Texas A&M University, College Station, TX, (5) University of Georgia, Tifton, GA, (6)Auburn University, Auburn, AL, (7)Virginia Tech Tidewater AREC, Suffolk, VA, (8)Louisiana State University, Winnsboro, LA, (9)University of Arkansas, Fayetteville, AR, (10)NC State University, Raleigh, NC, (11) Mississippi State University, Stoneville, MS
41. **Penthiopyrad - New Fungicide of Cottonseed Treatment for Rhizoctonia Solani**  
**Kunihisa Umetani**, Hiroshi Ishimoto and Anthony D Blotsky, Mitsui Chemicals Agro, Inc., Tokyo, Japan
42. **Cultivar Response to Inoculation with Xanthomonas Citri Subsp. Malvacearum in Mississippi in 2019**  
**Thomas W. Allen**, Mississippi State University, Delta Research and Extension Center, Stoneville, MS
43. **The Response of Cotton Varieties to Bacterial Blight in South Texas**  
**Srinadh Kodali**<sup>1</sup>, Greta Schuster<sup>2</sup>, Enrique Gino Medrano<sup>3</sup> and Alinna Umphres<sup>1</sup>, (1)Texas A&M University - Kingsville, Kingsville, TX, (2)Texas A&M University Kingsville, Kingsville, TX, (3)USDA-ARS, College Station, TX
44. **Verticillium Wilt Disease Incidence and Severity As Related to Cotton Cultivar Yields in the Tennessee Valley Region, 2019.**  
**Kathy S. Lawrence**<sup>1</sup>, Tyson B Raper<sup>2</sup>, Heather Kelly<sup>2</sup>, Brad Meyer<sup>3</sup> and Tyler Sandlin<sup>4</sup>, (1)Auburn University, Auburn, AL, (2) University of Tennessee, Jackson, TN, (3)Agri-AFC, Decatur, AL, (4) Auburn University, Belle Mina, AL

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45. **Molecular and Disease Characterization of *Verticillium Dahiae* Isolates from China in 2015**  
**Tanya A. Wagner**<sup>1</sup>, Aixing Giu<sup>2</sup>, Alois A. Bell<sup>3</sup>, Clint W Magill<sup>3</sup> and Jinggao Liu<sup>1</sup>, (1)USDA-ARS ICCDRU, College Station, TX, (2) Xinjiang Agricultural University, Urumqi, China, (3)Texas A&M University, College Station, TX
46. **Enhanced Fusarium Wilt Resistance Associated with Lacinilene Pathway Induction in Cotton**  
Tanya A. Wagner<sup>1</sup>, Yingfan Cai<sup>2</sup>, Alois Bell<sup>3</sup>, Lorraine Puckhaber<sup>3</sup>, Clint W Magill<sup>4</sup>, Sara Duke<sup>3</sup> and **Jinggao Liu**<sup>1</sup>, (1)USDA-ARS ICCDRU, College Station, TX, (2)Henan University, Kaifeng, China, (3)USDA-ARS, College Station, TX, (4)Texas A&M University, College Station, TX
47. **Evaluation of Commercial Upland Cotton Varieties for Reaction to *Fusarium Oxysporum f. Sp. Vasinfectum* Race 4 in Texas.**  
**Thomas Isakeit**, Texas A&M University, College Station, TX and Orlando Flores, Texas A&M AgriLife Extension, El Paso, TX
48. **A Cost-Effective Prescription Management Strategy Utilizing Fertilizers and Nematicides to Combat Yield Loss from Reniform Nematode**  
**Kara Gordon**, Auburn University, Auburn University, AL, Kathy S. Lawrence, Auburn University, Auburn, AL, Brad Meyer, Agri-AFC, Decatur, AL and Drew Schrimsher, Agri-AFC, Slocumb, AL
49. **Meloidogyne Incognita As a Potential Pathogen on Winter Cover Crops Used in Cotton Production**  
**Sloane McPeak**<sup>1</sup>, Kathy Lawrence<sup>1</sup> and Dustin Herb<sup>2</sup>, (1)Auburn University, Auburn, AL, (2)OreGro Seeds, Albany, OR
50. **Impact of Cotton Genetics and Nematicides on Reniform Nematode Populations and Yield**  
**Jennifer Dudak**<sup>1</sup>, Reagan L. Noland<sup>2</sup>, Thomas Isakeit<sup>1</sup>, Gaylon Morgan<sup>3</sup> and Terry A. Wheeler<sup>4</sup>, (1)Texas A&M University, College Station, TX, (2)Texas A&M Agrilife Extension Service, San Angelo, TX, (3)Cotton Incorporated, Cary, NC, (4)Texas A&M AgriLife Research, Lubbock, TX
51. **Evaluation of Phytoen Seed Treatment and Variety for Reniform Nematode Management in Mississippi.**  
**Tessie H. Wilkerson**, Mississippi State University, Stoneville, MS and Thomas W. Allen, Mississippi State University, Delta Research and Extension Center, Stoneville, MS
52. **Population Dynamics of Southern Root-Knot, Columbia Lance, and Ring Nematodes in Cotton-Cotton-Peanut Rotation in South Carolina**  
**Michael T. Plumblee**, Kendall R. Kirk and John Mueller, Clemson University, Blackville, SC
53. **Evaluation of Salibro As a New Nematicide for Cotton Production Systems**  
**Bisho Ram Lawaju** and Kathy Lawrence, Auburn University, Auburn, AL

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

54. **Quantifying Cotton Sustainability and Exploring Opportunities for Growth Using Field to Market**  
**Anna E. Hartley**, University of Georgia, Tifton, GA and Wesley M Porter, Assistant Professor, Department of Crop and Soil Sciences, Tifton, GA

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55. **Contribution of Conservation Practices to Water Quality in Arkansas Cotton: Results of 2-Year Study**  
**Arlene A Adviento-Borbe**<sup>1</sup>, Richard Woodruff<sup>2</sup>, Michele L. Reba<sup>3</sup>, Joseph Massey<sup>3</sup> and Tina Gray Teague<sup>4</sup>, (1)DWMRU USDA-ARS, Jonesboro, AR, (2)University of Arkansas, University Park, AR, (3) USDA-ARS, Jonesboro, AR, (4)Ark State Univ / Univ Ark Exp Sta, State University, AR
56. **Using Soil Moisture Sensors and Cover Crops to Better Manage Soil Moisture Availability for Cotton and Other Row Crops in Northwest Florida**  
**Libbie Johnson**, University of Florida Escambia County, Cantonment, FL, Michael J. Mulvaney, University of Florida, Jay, FL and Ethan Carter, University of Florida Jackson County, Marianna, FL
57. **Mobile Robot Weeder Prototype**  
Dennis Daly IV<sup>1</sup>, Christina Chiu<sup>1</sup>, Marlowe Edgar Burce<sup>1</sup>, **Joe Mari J. Maja**<sup>1</sup> and Edward M. Barnes<sup>2</sup>, (1)Clemson University, Blackville, SC, (2)Cotton Incorporated, Cary, NC
58. **Cotton Yield, Losses, and Quality As a Function of Harvesting Ground Speed**  
**Kendall R. Kirk**, Michael T. Plumblee, Brennan E. Teddy, Benjamin B. Fogle and L. Alex Samenko, Clemson University, Blackville, SC
59. **Diurnal and Cloud Cover Effects on UAS Multispectral Data**  
**Lori Duncan**<sup>1</sup>, Michael Buschermohle<sup>1</sup>, Tyson B Raper<sup>2</sup>, John Wilkerson<sup>1</sup> and William Hart<sup>1</sup>, (1)University of Tennessee, Knoxville, TN, (2)University of Tennessee, Jackson, TN

### **Cotton Ginning Conference Posters**

60. **Seed Cotton Moisture Issues and Handling in Cotton Ginning**  
**Filip To**, Mississippi State University, Mississippi State, MS
61. **Contaminants Issues and Handling in Cotton Ginning**  
**Filip To**, Mississippi State University, Mississippi State, MS

### **Cotton Improvement Conference Posters**

62. **Greenhouse Screening of Cotton for Fusarium Wilt Race 4 Resistance in New Mexico**  
**Jinfa Zhang**<sup>1</sup>, Abdelraheem Abdelraheem<sup>1</sup>, Yi Zhu<sup>1</sup>, Terry Wheeler<sup>2</sup>, Robert L. Nichols<sup>3</sup> and Tom Wedegaertner<sup>3</sup>, (1) New Mexico State University, Las Cruces, NM, (2)Texas A&M AgriLife Research and Extension Center, Lubbock, TX, (3)Cotton Incorporated, Cary, NC
63. **Unmanned Aerial System (UAS) Based Early Season Growth Parameters for Cotton Phenotyping**  
**Mahendra Bhandari**, Texas A & M University, College Station, TX
64. **Nexgen New Variety Release**  
**Douglas J. Post**, and **Bob Gardner**, Citrus, TX and **Brad Littlefield**, Americot, Franklin, TN
65. **Adaptation of Indigenous Cotton Accessions for Mechanical Picking in Pakistan**  
**Sajid Majeed**, Muhammad Tehseen Azhar, Amir Shakeel, Abdul Ghafoor and Shakeel Ahmad Anjum, University of Agriculture Faisalabad, Faisalabad, Pakistan



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66. **Transcriptomic Profiling in Upland Cotton (*Gossypium hirsutum*) in Response to Cold Stress at the Early Seedling Stage**  
**Lakhvir Kaur**, Ritichel Bueno Gannaban, Junghyun Shim, Puneet Kaur Mangat, Benildo G de los Reyes and Rosalyn B Angeles-Shim, Texas Tech University, Lubbock, TX
67. **New Cotton Variety Introductions from BASF**  
**Kyle Fontenot**, BASF, Ville Platte, LA
68. **Status of National Cotton Germplasm Collection**  
**James Frelichowski**<sup>1</sup>, Janna Love<sup>1</sup>, Lori Hinze<sup>1</sup>, Joshua Udall<sup>1</sup>, Don Jones<sup>2</sup> and Jodi Scheffler<sup>3</sup>, (1)USDA-ARS, College Station, TX, (2)Cotton Incorporated, Cary, NC, (3)USDA-ARS, Stoneville, MS
69. **Transgenic Vs. Non-Transgenic Cotton in Regional High Quality Tests**  
**Linghe Zeng**, USDA-ARS, Stoneville, MS
70. **Deltapine Bollgard 3 Xtendflex Class of 20 Varieties**  
**David W Albers**, Bayer Crop Science, St. Louis, MO, Keylon Gholston, Bayer Crop Science, Baldwin, MS, Dawn Fraser, Bayer Crop Science, Mount Olive, NC and Darren Jones, Bayer Crop Science, Lubbock, TX

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

71. **Native Pollinators (Hymenoptera: Apoidea) in Mississippi Delta Cotton**  
Katherine A. Parys, USDA-ARS SIMRU, Stoneville, MS and **Terry Griswold**, USDA-ARS Pollinating Insects Research Unit, Logan, UT
72. **Development of Molecular Tools to Support Boll Weevil Eradication Programs**  
**Charles P.-C. Suh**<sup>1</sup>, Lindsey C Perkin<sup>1</sup>, Raul Ruiz-Arce<sup>2</sup>, Tyler Jay Raszick<sup>3</sup>, Gregory A. Sword<sup>3</sup> and Xanthe A. Shirley<sup>4</sup>, (1)USDA-ARS ICCDRU, College Station, TX, (2)USDA-APHIS, Edinburg, TX, (3)Texas A&M University, College Station, TX, (4)USDA-APHIS, College Station, TX
73. **Impacts of Decreased Measurements of Bollworm Susceptibility to Cry1Ac on Survival and Damage to Bt Cottons**  
**Nathan S. Little**, Blake H. Elkins, Michelle Mullen, Omaththage P. Perera, Katherine A. Parys and Kerry Clint Allen, USDA-ARS SIMRU, Stoneville, MS
74. **Comparison of Bt Technologies, with and without Diamide Applications for Control of *Helicoverpa Zea* in Arkansas Cotton**  
**Nichole Taillon**<sup>1</sup>, Gus Lorenz<sup>2</sup>, Benjamin C Thrash<sup>3</sup>, Nick R. Bateman<sup>4</sup>, Andrew Plummer<sup>1</sup>, Kevin McPherson<sup>3</sup>, Wes Plummer<sup>5</sup> and Garrett Felts<sup>6</sup>, (1)University of Arkansas CES, Lonoke, AR, (2) The University of Arkansas, Lonoke, AR, (3)University of Arkansas, Lonoke, AR, (4)University of Arkansas - RREC, Stuttgart, AR, (5)UA-CES, Lonoke, AR, (6)University of Arkansas- RREC, Stuttgart, AR
75. **Efficacy of Selected Insecticides for Control of Cotton Bollworm, *Helicoverpa Zea*, in Conventional Cotton**  
**Kevin McPherson**<sup>1</sup>, Garrett Felts<sup>2</sup>, Gus Lorenz<sup>3</sup>, Benjamin C Thrash<sup>1</sup>, Nick R. Bateman<sup>4</sup>, Andrew Plummer<sup>5</sup>, Nichole Taillon<sup>5</sup> and Wes Plummer<sup>6</sup>, (1)University of Arkansas, Lonoke, AR, (2)University of Arkansas- RREC, Stuttgart, AR, (3)The University of Arkansas, Lonoke, AR, (4)University of Arkansas - RREC, Stuttgart, AR, (5) University of Arkansas CES, Lonoke, AR, (6)UA-CES, Lonoke, AR

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76. **Efficacy of Selected Insecticides for Control of Tarnished Plant Bug, *Lygus lineolaris*, in Arkansas Cotton**  
**Andrew Plummer**<sup>1</sup>, Wes Plummer<sup>2</sup>, Gus Lorenz<sup>3</sup>, Benjamin C Thrash<sup>4</sup>, Nick R. Bateman<sup>5</sup>, Nichole Taillon<sup>1</sup>, Kevin McPherson<sup>4</sup> and Garrett Felts<sup>6</sup>, (1)University of Arkansas CES, Lonoke, AR, (2) UA-CES, Lonoke, AR, (3)The University of Arkansas, Lonoke, AR, (4)University of Arkansas, Lonoke, AR, (5)University of Arkansas - RREC, Stuttgart, AR, (6)University of Arkansas- RREC, Stuttgart, AR
77. **Variation in Heliothine Injury and Yields in Selected Cotton Cultivars in New Mexico.**  
**Jane Pierce**<sup>1</sup>, Patricia Monk<sup>1</sup>, Ivan Tellez<sup>1</sup> and Stephen Biles<sup>2</sup>, (1)New Mexico State University, Las Cruces, NM, (2)Texas A&M AgriLife Extension Service, Port Lavaca, TX
78. **Refining Pest Management Thresholds for Water-Deficit Cotton Production**  
**David Griffin**<sup>1</sup>, Allison Randell<sup>1</sup>, Michael Toews<sup>1</sup>, Suhas Vyavhare<sup>2</sup>, Katie L. Lewis<sup>3</sup>, Abdul Hakeem<sup>3</sup>, Donna McCallister<sup>2</sup> and Megha N. Parajulee<sup>3</sup>, (1)University of Georgia, Tifton, GA, (2)Texas A&M AgriLife Research, Lubbock, TX, (3)Texas A&M AgriLife Research and Extension Center, Lubbock, TX
79. **Effect of Cultivar on Tarnished Plant Bug, *Lygus lineolaris*, Populations in Cotton**  
**Glenn Studebaker**<sup>1</sup>, Courtney J Spinks<sup>1</sup> and Fred M. Bourland<sup>2</sup>, (1)University of Arkansas, Keiser, AR, (2)University of Arkansas- NEREC, Keiser, AR
80. **Corn Earworm Emergence from Vip Seed Blend Vs Block Refuge**  
**Suhas Vyavhare** and Patrick Porter, Texas A&M AgriLife Extension Service, Lubbock, TX
81. **Performance of Acephate Against Tobacco Thrips and Evidence of Possible Resistance**  
**Scott D. Stewart**<sup>1</sup>, Dawson Kerns<sup>1</sup>, Sandy Steckel<sup>1</sup>, Scott Hester Graham<sup>1</sup>, Clay Perkins<sup>1</sup>, Fred Musser<sup>2</sup>, Beverly Catchot<sup>2</sup>, Angus Catchot<sup>2</sup>, Jeff Gore<sup>3</sup>, George G. Kennedy<sup>4</sup>, Anders S. Huseth<sup>4</sup>, Dominic Reisig<sup>5</sup>, Gus Lorenz<sup>6</sup>, David Kerns<sup>7</sup>, Sally Taylor<sup>8</sup> and Sebe Brown<sup>9</sup>, (1)The University of Tennessee, Jackson, TN, (2)Mississippi State University, Mississippi State, MS, (3) Mississippi State University, Stoneville, MS, (4)North Carolina State University, Raleigh, NC, (5)North Carolina State University, Plymouth, NC, (6)The University of Arkansas, Lonoke, AR, (7)Texas A&M University, College Station, TX, (8)Virginia Tech University, Suffolk, VA, (9)LSU AgCenter, Winnsboro, LA
82. **2019 Cotton Insect Losses Estimates**  
**Don Cook**, Mississippi State University, Stoneville, MS and Meg Threet, MSU, Stoneville, MS
83. **Impact of Lygus Bugs on Cotton Fiber Yield and Quality Under Dryland and Full Irrigation**  
**Dol P. Dhakal**<sup>1</sup>, Abdul Hakeem<sup>2</sup>, Megha N. Parajulee<sup>2</sup> and Katie L. Lewis<sup>2</sup>, (1)Texas A&M AgriLife Research Center, Lubbock, TX, (2) Texas A&M AgriLife Research and Extension Center, Lubbock, TX
84. **Delivery of Pest and Natural Enemy Profiles in Cotton Cultivars in the Florida Panhandle**  
**Ethan Carter**<sup>1</sup>, Marcelo Rabelo<sup>2</sup>, Libbie Johnson<sup>3</sup> and Silvana Paula-Moraes<sup>2</sup>, (1)University of Florida Jackson County, Marianna, FL, (2)University of Florida, Jay, FL, (3)University of Florida Escambia County, Cantonment, FL

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85. **Lygus Management in California Cotton**  
**Ian M Grettenberger**, University of California-Davis, Davis, CA, CA and Treanna Pierce, UC Cooperative Extension, Shafter, CA
86. **Efficacy of Pesticides Used in Cotton When Applied at Specific Droplet Sizes**  
**Tyler S. Soignier**, Michael T. Plumblee, Jeremy Greene, Kendall R. Kirk and John Mueller, Clemson University, Blackville, SC
87. **Laboratory and Field Investigations on Compatibility of *Beauveria bassiana* Spores with a Sprayable Bioplastic Formulation for Application in the Biocontrol of Tarnished Plant Bug in Cotton.**  
**Maribel Portilla**<sup>1</sup>, Hamed Abbas<sup>2</sup>, C. Accinelli<sup>2</sup> and Randall G. Luttrell<sup>3</sup>, (1)USDA, Stoneville, MS, (2)USDA-ARS, Stoneville, MS, (3) USDA-ARS SIMRU, Stoneville, MS
88. **Evaluation of Products for Fleahopper Control in Northeast Texas - 2019**  
**Jacob A. Galicia**<sup>1</sup>, Brad Voss<sup>1</sup> and David R. Drake<sup>2</sup>, (1)Texas A&M University-Commerce, Commerce, TX, (2)Texas A&M AgriLife Extension Service, Commerce, TX

### **Cotton Utilization Conference Posters**

89. **Cotton Seed Biopeptides on Mouse Macrophage Gene Expression**  
**Kandan Sethumadhavan**<sup>1</sup>, Heping Cao<sup>1</sup>, Zhongqi He<sup>1</sup>, H.N. Cheng<sup>1</sup> and John Bland<sup>2</sup>, (1)USDA-ARS-SRRC, New Orleans, LA, (2) USDA-ARS-SRRC, New Orleans, LA

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

90. **Determining the Effect of Elemental Additives on Efficacy of Dicamba Mixtures**  
**Jake A Patterson**, Jason K. Norsworthy, Lawson Priess and Mason Castner, University of Arkansas, Fayetteville, AR
91. **Efficacy of Isoxaflutole Alone and with Tank Mix Partners across the Cotton Belt**  
**Delaney C. Foster**<sup>1</sup>, Peter A. Dotray<sup>2</sup>, Seth A. Byrd<sup>3</sup>, A. Stanley Culpepper<sup>4</sup>, Darrin M. Dodds<sup>5</sup>, Steven D. Hall<sup>5</sup>, Bradley Norris<sup>5</sup>, Reagan L. Noland<sup>6</sup>, Scott Nolte<sup>7</sup>, Mason House<sup>8</sup>, Jason K. Norsworthy<sup>9</sup>, Rodger B. Farr<sup>9</sup>, Larry Steckel<sup>10</sup> and Corey N. Thompson<sup>11</sup>, (1)Texas Tech University, Lubbock, TX, (2)Texas Tech University, Texas A&M AgriLife Research and Extension Service, Lubbock, TX, (3)Oklahoma State University, Stillwater, OK, (4) University of Georgia, Tifton, GA, (5)Mississippi State University, Mississippi State, MS, (6)Texas A&M Agrilife Extension Service, San Angelo, TX, (7)Texas A&M University, College Station, College Station, TX, (8)Texas A&M Agrilife Extension, College Station, TX, (9)University of Arkansas, Fayetteville, AR, (10)University of Tennessee, Jackson, TN, (11)BASF, Lubbock, TX
92. **Evaluation of Multiple Brake Tank Mixes for Residual Herbicide Efficacy with and without Pre-Plant Incorporated Valor**  
**Owen Wesley France**, University of Arkansas, Fayetteville, AR

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93. **Tolerance of Transformed Cotton to Isoxaflutole-Based Herbicide Programs**  
**James W Beesinger**, Jason K. Norsworthy, Rodger B. Farr, Lawson Priess and Mason Castner, University of Arkansas, Fayetteville, AR
94. **Influence of Groundcover and Glufosinate on Dicamba Volatility**  
**Mason Castner**<sup>1</sup>, Jason K. Norsworthy<sup>1</sup>, Maria L Zaccaro<sup>2</sup> and Winston H Beesinger<sup>1</sup>, (1)University of Arkansas, Fayetteville, AR, (2)Weed Science, Fayetteville, AR
95. **Evaluation of Isoxaflutole-Based Herbicide Programs for Cotton**  
**Rodger B. Farr**, Jason K Norsworthy, Lawson Priess and Mason Castner, University of Arkansas, Fayetteville, AR
96. **Stewardship Practices in Xtendflex Cotton and Economic Analysis**  
**Rohith Vulchi**<sup>1</sup>, Josh McGinty<sup>2</sup> and Scott Nolte<sup>1</sup>, (1)Texas A&M University, College Station, College Station, TX, (2)Texas A&M AgriLife Extension Service, Corpus Christi, TX
97. **Palmer Amaranth (*Amaranthus palmeri*) and Thrips (*Thrips sp.*) Control with Various Dicamba + Insecticide Tank-Mixes in Cotton**  
**Jacob P. McNeal**<sup>1</sup>, Darrin M. Dodds<sup>1</sup>, Angus Catchot<sup>1</sup>, Jeff Gore<sup>2</sup>, John J. Williams<sup>1</sup>, Steven D. Hall<sup>1</sup> and Bradley Norris<sup>1</sup>, (1) Mississippi State University, Mississippi State, MS, (2)Mississippi State University, Stoneville, MS
98. **Inhibition of Electron Transport Rate in Cotton and Weeds By Ammonium Glufosinate**  
**Ilca Puertas de Freitas e Silva**<sup>1</sup>, Josue Ferreira Silva Junior<sup>2</sup>, Eric Haydt Castello Branco Van Cleff<sup>2</sup>, Caio Antonio Carbonari<sup>3</sup>, Edivaldo Domingues Velini<sup>3</sup>, Natalia Corniani<sup>4</sup>, Ivana Paula Ferraz Santos de Brito<sup>4</sup>, Rosilaine Araldi<sup>4</sup> and Leandro Tropaldi<sup>5</sup>, (1)Mato Grosso do Sul State University, Cassilandia, Brazil, (2) Triangulo Mineiro Federal University, Iturama, Brazil, (3)São Paulo State University, Botucatu, Brazil, (4)Sao Paulo State University, Botucatu, Brazil, (5)Sao Paulo State University, Dracena, Brazil
99. **Interactions of Sequential Applications of Dicamba and Glufosinate**  
**Lawson Priess**, Jason Norsworthy, Rodger B. Farr and Mason Castner, University of Arkansas, Fayetteville, AR
100. **Sequential Postemergence Applications of Liberty and Engenia in Bollgard II Xtendflex Cotton**  
**C.D. Ray White**<sup>1</sup>, Justin Lee Spradley<sup>2</sup>, Brice M. DeLong<sup>2</sup> and J. Wayne Keeling<sup>3</sup>, (1)Texas A&M AgriLife Research, Lubbock, TX, (2) Texas A&M AgriLife, Lubbock, TX, (3)Texas A&M AgriLife Research and Extension Center, Lubbock, TX
101. **Evaluation of Enlist Duo Weed Control Systems in Cotton (*Gossypium hirsutum*)**  
**John J. Williams**, Darrin M. Dodds, Jacob P. McNeal, Bradley Norris and Steven D. Hall, Mississippi State University, Mississippi State, MS
102. **Impact of Reduced Rates of Isoxaflutole on Cotton Growth and Yield.**  
**Donnie Miller**<sup>1</sup>, Daniel O Stephenson IV<sup>2</sup> and Marcie Mize<sup>1</sup>, (1) LSU AgCenter, St. Joseph, LA, (2)LSU AgCenter, Alexandria, LA

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103. **Impact of Reduced Rates of Mesotrione on Cotton Growth and Yield.**  
**Donnie Miller**<sup>1</sup>, Daniel O Stephenson IV<sup>2</sup> and Marcie Mize<sup>1</sup>, (1) LSU AgCenter, St. Joseph, LA, (2)LSU AgCenter, Alexandria, LA
104. **Tank Mixing Elevore and Quelex with Low Rates of 2,4-D and Dicamba for Broader Weed Control**  
**Jarette Hurry**<sup>1</sup>, Charlie Cahoon<sup>2</sup>, Guy D. Collins<sup>3</sup>, Rachel A. Vann<sup>2</sup>, Zack Taylor<sup>4</sup> and Alan York<sup>4</sup>, (1)NC State University, Windsor, NC, (2)North Carolina State University, Raleigh, NC, (3)NC State University, Rocky Mount, NC, (4)NC State University, Raleigh, NC
105. **2019 West Texas Auxin Herbicide Drift Evaluation Trial and Demonstration**  
**Blayne Reed**, Texas A&M AgriLife Extension, Plainview, TX and Reagan L Nowland, Texas A&M AgriLife Extension, San Angelo, TX
106. **Response of Xtend Cotton to Low Rates of 2,4-D**  
**Ralph R. Hale**<sup>1</sup>, Taghi Bararpour<sup>1</sup> and Daryl Chastain<sup>2</sup>, (1) Mississippi State University, Stoneville, MS, (2)Mississippi State University Delta Research and Extension Center, Stoneville, MS
107. **Response of Enlist Cotton to Low Rates of Dicamba**  
**Ralph R. Hale**<sup>1</sup>, Taghi Bararpour<sup>1</sup> and Daryl Chastain<sup>2</sup>, (1) Mississippi State University, Stoneville, MS, (2)Mississippi State University Delta Research and Extension Center, Stoneville, MS
108. **Response of Stoneville Cotton to Low Rates of Dicamba and 2-4-D**  
**Taghi Bararpour**, Ralph R. Hale and Daryl Chastain, Mississippi State University, Stoneville, MS
109. **Effectiveness of Preemergence Herbicides in Cotton**  
**Ubaldo Torres**<sup>1</sup>, Peter A. Dotray<sup>2</sup> and Kyle Russell<sup>1</sup>, (1)Texas A&M AgriLife Research, Lubbock, TX, (2)Texas Tech University, Texas A&M AgriLife Research and Extension Service, Lubbock, TX
110. **Response of Cotton at Different Growth Stages to Drift Rates of Commonly Used Forestry Herbicides**  
**Michael W. Marshall**, Clemson University - Edisto REC, Blackville, SC
111. **Sequential Applications Including Liberty with Enlist™ or Xtendimax**  
Grace K. Flusche Ogden<sup>1</sup>, **Ubaldo Torres**<sup>1</sup>, Peter A. Dotray<sup>2</sup> and John Everitt<sup>3</sup>, (1)Texas Tech University, Lubbock, TX, (2)Texas Tech University, Texas A&M AgriLife Research and Extension Service, Lubbock, TX, (3)Bayer CropScience, Shallowater, TX
112. **Control of Volunteer Cotton with Dicamba and 2,4-D**  
**Todd A Baughman**, Oklahoma State University, Ardmore, OK and Peter A. Dotray, Texas Tech University, Texas A&M AgriLife Research and Extension Service, Lubbock, TX

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