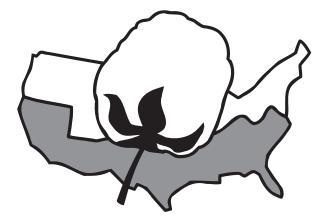
# Beltwide Cotton Conferences



January 8-10, 2019 New Orleans Marriott Hotel New Orleans, Louisiana



## **Schedule of Events**

	Tuesday, January 8	
7:30a- 1:00p	Extension Cotton Specialist Meeting (By Invitation Only)	St. Charles (41 <sup>st</sup> Floor)
8:00a-11:00a	CottonGen Breeding Tools Training Workshop (By Invitation Only)	Balcony I
9:00a- 7:00p	Conference Registration (Sponsored by Bayer)	Preservation Hall Foyer
9:00a- 7:00p	Newsroom	Iberville
9:00a- 7:00p	Confex Presentation Uploading Room for Speakers	Studio 10
9:00a- 10:00p	Speaker Practice Room	Rhythm
9:00a- 10:00p	Internet Café (Sponsored by Farm Credit)	Preservation Hall Foyer
9:00a- 10:00p	Wireless Hotspot	Preservation Hall Foyer
11:00a-12:00p	Consultants Conference Luncheon (Sponsored by Bayer, Corteva, FMC, Syngenta)	Studio 3-4
12:00p- 5:30p	Consultants Conference General Session	Salon D
12:30p- 5:00p	Joint Symposium: Improvement/ Agronomy/Disease Conferences	Balconies I-J-K
1:30p- 3:00p	NCGA Safety and Labor Committee	Studio 8-9
3:00p- 3:30p	Coffee Break (Sponsored by Bayer)	Salon D Foyer
3:15p- 4:45p	NCGA Technology Com. – Air Quality Subcommittee	Studio 8-9
5:00p- 5:45p	National Cotton Variety Testing Com- mittee Meeting (By Invitation Only)	Salons AB
5:45p- 6:15p	Cotton Germplasm Committee (By Invitation Only)	Salons AB
6:00p- 7:00p	Welcome Reception for all attendees	Acadia
6:15p- 6:45p	Regional Breeders Test Meeting (By Invitation Only)	Salons AB

The contents of this booklet are current as of December 14, 2018. 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/beltwide/index.cfm, or by using one of the BWCC scheduling tools referenced on page five of this booklet.

## **Schedule of Events**

	Wednesday, January 9	
7:00a- 10:00p	Internet Café (Sponsored by Farm Credit)	Preservation Hall Foyer
7:00a- 10:00p	Wireless Hotspot	Preservation Hall Foyer
7:00a- 10:00p	Speaker Practice Room	Rhythm
7:30a- 8:00a	Coffee Break (Sponsored by Bayer)	2 <sup>nd</sup> Floor Foyer
7:30a- 5:00p	Conference Registration (Sponsored by Bayer)	Preservation Hall Foyer
7:30a- 5:00p	Newsroom	Iberville
7:30a- 5:00p	Confex Presentation Uploading Room for Speakers	Studio 10
8:00a- 11:00a	NCGA Technology Committee	Studio 9
8:00a- 12:00p	Cotton Engineering-Systems Conference - Cotton Sustainability Session	Studios 4-5
8:00a- 5:00p	Cotton Improvement Conference	Galerie 2
8:00a- 5:00p	Cotton Disease Council	Galerie 1
8:00a- 10:00p	Technical Conferences Poster Board Session	Salons E-H
8:15a- 4:45p	Cotton Agronomy, Physiology & Soils Conference 5:00-7:00p – Business Meeting	Galerie 5
8:25a- 2:30p	Cotton Weed Science Research Conference	Salons A-C
8:45a- 3:15p	Cotton Agronomy, Physiology & Soils Conference – MS Student Competition	Galerie 6
10:00a-10:30a	Coffee Break (Sponsored by Bayer)	2 <sup>nd</sup> & 3 <sup>rd</sup> Floor Foyers
10:30a-12:00p	Cotton Economic Outlook Symposium	Salon D
10:30a- 3:00p	Cotton Utilization Conference	Galerie 4
11:00a-12:00p	Cotton Insect Research & Control Roundtable	Galerie 3
1:00p- 5:00p	Cotton Engineering-Systems Conference	Studios 4-5
1:30p- 5:30p	Cotton Ginning Conference	Studio 2-3
1:30p- 5:30p	Cotton Insect Research & Control Conference – MS Student Paper Competition	Studios 7-8
1:30p- 5:00p	Cotton Economics and Marketing Conference	Salon D
1:30p- 5:30p	Cotton Insect Research & Control Conference – PhD Student Paper Competition	Galerie 3
3:15p- 4:00p	Coffee Break in Poster Board Session room (authors present)	Salons E-H
3:30p- 5:45p	Cotton Quality Measurements Conference	Galerie 4

## **Schedule of Events**

	Wednesday, January 9 (cont.)	
5:00p- 7:00p	Cotton Disease Council Business Meeting	Galerie 1
5:00p- 7:00p	Cotton Agronomy & Physiology Business Meeting	Galerie 5
5:45p- 7:00p	Cotton Insect Research & Control Business Meeting and Mixer Sponsored by Bayer)	Galerie 3
6:00p- 7:00p	Cotton Industry Support Group Meeting	Studio 2-3
6:00p- 7:00p	Journal of Cotton Science Editorial Board	Lafayette (41 <sup>st</sup> Floor)
7:30p- 9:00p	Joint Cotton Breeding Committee	Napoleon (41 <sup>st</sup> Floor)
	Thursday, January 10	
7:00a- 1:00p	Speaker Practice Room	Rhythm
7:00a- 1:00p	Internet Café (Sponsored by Farm Credit)	Preservation Hall Foyer
7:00a- 1:00p	Wireless Hotspot	Preservation Hall Foyer
7:30a- 8:00a	Coffee Break (Sponsored by Bayer)	2 <sup>nd</sup> & 3 <sup>rd</sup> Floor Foyers
7:30a- 12:00p	Confex Presentation Uploading Room ( <b>CLOSED;</b> speakers to go to meeting room to upload)	Studio 10
7:30a- 1:00p	Conference Registration (Sponsored by Bayer)	Preservation Hall Foyer
7:30a- 1:00p	Newsroom	Iberville
8:00a-10:30a	Cotton Economics and Marketing Conference	Salon D
8:00a-10:30a	Cotton Insect Research & Control Conf. – Session A	Galerie 3
8:00a-10:30a	Cotton Insect Research & Control Conf. – Session B	Studios 7-8
8:00a-11:30a	Cotton Improvement Conference 11:30a-12:30p – Business Meeting	Galerie 2
8:00a-12:00p	Technical Conferences Poster Board Session	Salons E-H
8:00a-12:00p	Cotton Disease Council	Galerie 1
8:15a-10:30a	Cotton Ginning Conference	Studio 2-3
9:00a-10:00a	Cotton Engineering Systems Conference	Studios 4-5
9:00a-10:30a	Cotton Agronomy, Physiology & Soils Conference—Awards Session	Galerie 5
9:30a-10:00a	Cotton Weed Science Research — Graduate Student Awards	Salons A-C
10:00a-10:30a	Coffee Break	2 <sup>nd</sup> & 3 <sup>rd</sup> Floor Foyers
12:00p- 5:00p	Precision Cotton Researchers Working Group (By Invitation Only)	Balcony J

## Mobile Access/ Online Scheduler



To help with event planning/scheduling, BWCC attendees may use the Online Scheduler which contains the 2019 BWCC QR Code above. This QR Code can be scanned with a cell phone app so the online scheduler page can be accessed via the cell phone's browser. This Online Scheduler, also available from the BWCC website's home page, **www.cotton.org/beltwide**, requires no log-in. The Scheduler can be used to view session details and to search for topics or presenters in your field of interest.\* Attendees who desire to save a schedule to their own computer/PDA or to print a hard copy should use the BWCC's Personal Scheduler.

## **Personal Scheduler**

BWCC attendees may use the Personal Scheduler to plan their daily activities. Also available from the BWCC website (see URL above), the scheduler contains links that allow program browsing, searching for specific presenters/events of interest, and viewing abstracts/sessions/etc. The Beltwide's Personal Scheduler also can be used to track events/sessions the user may choose not to attend and/or to track unofficial meetings/ engagements during the Conferences. Once an attendee builds a personal schedule, it may be saved to their own computer/PDA or print a hard copy.

\*Information about the 2019 BWCC Proceedings and recorded presentations is available in the back of this booklet.

## Internet Café and Wi-Fi

Wi-Fi Address: 2019beltwide

## **CEU Information**

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

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

### Accrediting Group or State

Certified Crop Adviser (CCA) Program 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

Alabama Department of Agriculture & Industries, Pesticide Management ~ Certification Unit; 1445 Federal Drive, Montgomery, AL 36107; Phone: 334-240-7240; Fax: 334-240-7168;

Email: Barbara.gates@agi.alabama.gov

Arizona Department of Agriculture, Office of Pest Management; 1688 West Adams, Phoenix, AZ 85007; Phone: 602-255-3662; Email: rwalker@azda.gov

**Arkansas** 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

**California** Department of Pesticide Regulation; P. O. Box 1379, Sacramento, CA 95812; Phone: 916-445-3914; Fax: 916-928-0705; Email: info4ce@cecpm.com

**Georgia** 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

Louisiana Department of Agriculture & Forestry, Office of Agricultural & Environmental Sciences; 5825 Florida Blvd. Ste. 3003, Baton Rouge, LA 70806-4259; Phone: 225-925-3763; Fax: 225-237-5725; Email: kevin\_w@ldaf.state.la.us; Web: www.ldaf.state.la.us

Mississippi Department of Agriculture & Commerce, Bureau of Plant Industry, Pest Control Section; P.O. Box 5207, Mississippi State, MS 39762; Phone: 662-325-0522 or 662-325-7766; FAX: 662-325-0397; Email: russellk@mdac.ms.gov (or) AnnaA@mdac.ms.gov

New Mexico Department of Agriculture, Cert. & Training Specialist; 190 S. Espina, MSC 3AQ, Box 30005, Las Cruces, NM 88003-8005; Phone: 575-646-4837; FAX: 575-646-1540; Email: Ithomen@nmda.nmsu.edu

North Carolina Pesticide Section, NCDA & CS; 1090 Mail Service Center, Raleigh, NC 27699-1090; Phone: 919-857-4133; FAX: 919-733-9796; Email: John.Feagans@ncagr.gov **Oklahoma** Pesticide Certification & Training Administrator, Agriculture, Food and Forestry, Consumer Protection Services; 2800 N. Lincoln Blvd., Oklahoma City, OK 73105; Phone: 405-522-5993; Fax: 405-522-5986; Email: ryan.williams@ag.ok.gov

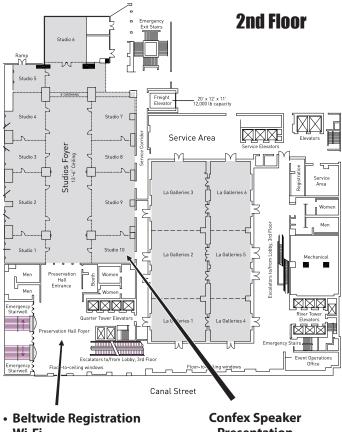
South Carolina Special Programs Manager/Recertification Manager Department of Pesticide Regulation Division of Regulatory & Public Service Programs 511 Westinghouse Road, Pendleton, SC 29670; Phone: 864-646-2150; Fax: 864-646-2179; Email: thghslr@clemson.edu

Tennessee Department of Agriculture, Ellington Ag. Center, Regulatory Services;

440 Hogan Road, Melrose Station, Nashville, TN 37204; Phone: 615-837-5310; Fax: 615-837-5012; Email: mary.borthick@tn.gov

**Texas** Department of Agriculture, Coordinator for Pesticide Certification and Compliance; P.O. Box 12847, Austin, TX 78711; Phone: 512-463-7692 or 800-835-5832; Fax: 888-216-9865; (CEU inquiries) Email: recertcourses@texasagriculture.gov; Phone: 512-463-8713

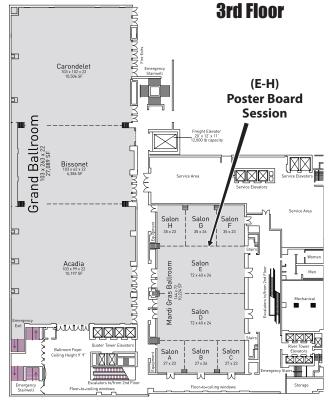
## Marriott Hotel Meeting Room Floor Plans



- Wi-Fi
- Internet Café

Confex Speaker Presentation Uploading Room

## Marriott Hotel Meeting Room Floor Plans

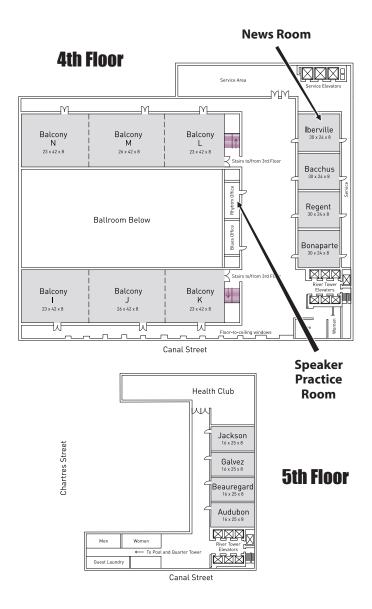


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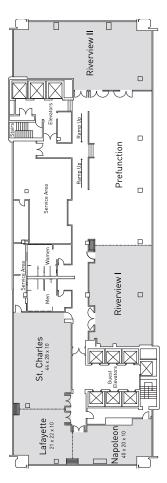
Canal Street

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## Marriott Hotel ting Room Floor Plans



## Marriott Hotel Meeting Room Floor Plans



### **41st Floor**

## Cotton Consultants Conference

### Tuesday, January 8, 2019

### CONSULTANTS CONFERENCE GENERAL SESSION

Mardi Gras Ballroom Salon D (New Orleans Marriott) - 12:00 PM-5:30 PM

12:00 PM Introduction and Acknowledgements Hank Jones, RHJ Ag Services, LLC., 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 Bollworm Management Considerations and BT Resistance Update (A)

Rogers Leonard, Louisiana State University Ag Center, Baton Rouge, LA

12:45 PM Bollworm Management Considerations and BT Resistance Update (B)

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

1:00 PM Bollworm Management Considerations and BT Resistance Update (C)

Jeff Gore, Mississippi State University, Stoneville, MS

1:15 PM Bollworm Management Considerations and BT Resistance Update (D)

Dominic Reisig, North Carolina State University, Plymouth, NC

1:30 PM FOV 4 in Texas Thomas Isakeit, Texas A&M University, College Station, TX

2:00 PM Nematode Management in Cotton Kathy S. Lawrence, Auburn University, Auburn, AL

2:30 PM Status of Boll Weevil Eradication in Texas: The U.S. Buffer Larry Smith, Texas Boll Weevil Eradication Foundation, Abilene, TX

3:00 PM Break

3:30 PM Future of Auxin Crops: An EPA Perspective Rick P. Keigwin, EPA, Washington, DC

4:00 PM Product Registration Update Don Parker, National Cotton Council, Cordova, TN

4:30 PM Current State of IPM in Cotton Gus Lorenz, The University of Arkansas, Lonoke, AR

5:00 PM Cover Crop Panel Discussions (A) Don Cook, Mississippi State University, Stoneville, MS

5:10 PM Cover Crop Panel Discussions (B) Bill Robertson, University of Arkansas, Newport, AR

5:20 PM Cover Crop Panel Discussions (C) Larry Steckel, University of Tennessee, Jackson, TN

## Cotton Agronomy, Physiology and Soil Conference

### Wednesday, January 9, 2019

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

### Galerie 5 (New Orleans Marriott) - 8:15 AM-10:00 AM

### 8:15 AM Yield Component Contributions to Yield Loss and Fiber Quality Deterioration Under Drought Stress in Field-Grown Cotton

John L. Snider<sup>1</sup>, Wei Hu<sup>1</sup>, Haimiao Wang<sup>1</sup>, Zhiguo Zhou<sup>2</sup>, Daryl Chastain<sup>3</sup>, Jared R. Whitaker<sup>1</sup>, Calvin Perry<sup>4</sup> and Fred M. Bourland<sup>5</sup>, (1)University of Georgia, Tifton, GA, (2)Nanjing Agricultural University, Nanjing, China, (3) Mississippi State University Delta Research and Extension Center, Stoneville, MS, (4)University of Georgia, Camilla, GA, (5)University of Arkansas-NEREC, Keiser, AR

### 8:30 AM Comparison of Evapotranspiration Methods in the Cotton2K Model

**Kelly R. Thorp**<sup>1</sup>, Gary W. Marek<sup>2</sup>, Kendall C. DeJonge<sup>3</sup>, Steven R. Evett<sup>2</sup> and Robert J. Lascano<sup>4</sup>, (1)USDA-ARS, Maricopa, AZ, (2)USDA-ARS, Bushland, TX, (3)USDA-ARS, Fort Collins, CO, (4)USDA-ARS, Lubbock, TX

### 8:45 AM Identifying Contributing Factors of Evapotranspiration Drivers in US Mid-South Cotton Production

Michele L. Reba<sup>1</sup>, Bryant N Fong<sup>1</sup>, Tina Gray Teague<sup>2</sup>, Benjamin R. K. Runkle<sup>3</sup> and Kosana Suvočarev<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

#### 9:00 AM Comparison of Eddy Covariance Evapotranspiration Measurements to DSSAT and Remote Sensing Based Simulations in Dryland Cotton in East-Central Texas

**Dorothy Menefee** and Nithya Rajan, Texas A&M University, College Station, TX

### 9:15 AM Sub-Optimal Growth Temperature Alters Thermotolerance of Thylakoid Component Processes in Cotton Seedlings

John L. Snider<sup>1</sup>, Wei Hu<sup>1</sup>, Daryl Chastain<sup>2</sup>, William Slaton<sup>3</sup> and Viktor Tishchenko<sup>4</sup>, (1)University of Georgia, Tifton, GA, (2)Mississippi State University Delta Research and Extension Center, Stoneville, MS, (3)University of Central Arkansas, Conway, AR, (4)University of Georgia, Griffin, GA

### 9:30 AM Dynamics of CO<sub>2</sub> Exchange in US Mid-South Cotton Production

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

**9:45 AM Measuring Cotton Variability Using a Blob\_Based Approach Andrew Young**, USDA-ARS, Lubbock, TX, Will Dodge, Texas Tech University, Lubbock, TX, Paxton Payton, United States Department of Agriculture, Lubbock, TX and James R. Mahan, USDA/ARS, Lubbock, TX

### COTTON AGRONOMY, PHYSIOLOGY & SOIL - WEDNESDAY EARLY MORNING - M.S. STUDENT COMPETITION

### Galerie 6 (New Orleans Marriott) - 8:45 AM-10:00 AM

### 8:45 AM Effects of Nitrogen and Potassium Rates and Timing on Cotton Yield and Fiber Quality

**Blake L. Szilvay**<sup>1</sup>, Keith L. Edmisten<sup>1</sup>, Guy D. Collins<sup>2</sup> and Randy Wells<sup>1</sup>, (1) North Carolina State University, Raleigh, NC, (2)North Carolina State University, Rocky Mount, NC

### 9:00 AM Physiological Processes Contributing to Early Season Crop Vigor in Cotton

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

9:15 AM Effects of Legume and Small Grain Cover Crops with Precision Planted Tillage Radish on Nutrient Cycling and Cotton Performance in Southeastern Virginia

Sarah McClanahan, Hunter Frame, Mark Reiter, Charles Cahoon and Michael Flessner, Virginia Polytechnic Institute & State University, Blacksburg, VA

9:30 AM Stand Characterization of Rainfed Cotton Via Uav Will Dodge, Texas Tech University, Lubbock, TX

### 9:45 AM Cotton Varietal Response to Potassium Application Rates Under Irrigated and Dryland Conditions

Savana Davis, Darrin M. Dodds, Lucas Xavier Franca, Bradley R. Wilson, Jacob P. McNeal, Bradley Norris and John J Williams, Mississippi State University, Mississippi State, MS

#### COTTON AGRONOMY, PHYSIOLOGY & SOIL - WEDNESDAY LATE MORNING

### Galerie 5 (New Orleans Marriott) - 10:30 AM-11:45 AM

10:30 AM Evaluation of Irrigation and Fertilization Strategies to Improve Irrigation and Nitrogen Water Use Efficiencies in Cotton George Vellidis<sup>1</sup>, Stefano Gobbo<sup>1</sup>, Matthew Gruver<sup>1</sup>, Lorena Nunes Lacerda<sup>1</sup>, Calvin Perry<sup>2</sup>, Wesley M. Porter<sup>1</sup>, Moukaram Tertuliano<sup>1</sup>, Arianna Toffanin<sup>1</sup> and Bobby J. Washington<sup>2</sup>, (1)University of Georgia, Tifton, GA, (2)

University of Georgia, Camilla, GA

### 10:45 AM Leveraging Rainfall with Very Limited Irrigations in Texas High Plains Cotton Rotations

Jim Bordovsky, Texas A&M Agrilife, Lubbock, TX

### 11:00 AM Assessment of Deficit Irrigation Strategies for Cotton Production in the Texas High Plains

Sushil Kumar Himanshu, Texas A&M Agrilife Research, Vernon, TX, Srinivasulu Ale, Texas A&M AgriLife Research, Vernon, TX, Jim Bordovsky, Texas A&M Agrilife, Lubbock, TX and Edward M. Barnes, Cotton Incorporated, Cary, NC

### 11:15 AM Design and Implementation of a Rainfed Matrix Protocol for the Study of Rainfed Cotton Production

James R. Mahan, USDA/ARS, Lubbock, TX and Paxton Payton, United States Department of Agriculture, Lubbock, TX

### 11:30 AM Determining Ideal Irrigation Termination Dates Under Deficit Irrigation Strategies

Srinivasulu Ale, Texas A&M AgriLife Research, Vernon, TX, Sushil Kumar Himanshu, Texas A&M Agrilife Research, Vernon, TX, Nina Omani, Syngenta Crop Protection, LLC, Greensboro, NC, Jim Bordovsky, Texas A&M Agrilife, Lubbock, TX, Kelly R. Thorp, USDA-ARS, Maricopa, AZ and Edward M. Barnes, Cotton Incorporated, Cary, NC

### COTTON AGRONOMY, PHYSIOLOGY & SOIL - WEDNESDAY EARLY AFTERNOON

### Galerie 5 (New Orleans Marriott) - 1:00 PM-3:00 PM

1:00 PM Fertilizing Cotton with N, P and K by Yield Goal in Georgia Glendon Harris, University of Georgia, Tifton, GA

1:15 PM Twenty Years of Nitrogen Management Research for Texas and Arizona Cotton: What We Have Learned Kevin F. Bronson, USDA-ARS, Maricopa, AZ

### 1:30 PM Continued Field Evaluation of Nitrogen and Zinc Rates in a Cotton/Corn Rotation

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

### 1:45 PM Cotton Yield Monitor Values Drift over Time

**Rodrigo Goncalves Trevisan**<sup>1</sup>, Alexandre Ormiga Galvao Barbosa<sup>2</sup>, Luciano Shozo Shiratsuchi<sup>3</sup> and Nicolas Federico Martin<sup>1</sup>, (1)University of Illinois at Urbana-Champaign, Urbana, IL, (2)University of Illinois at Urbana Champaign, Urbana, IL, (3)Louisiana State University Agricultural Center, Baton Rouge, LA

### 2:00 PM Potential Uses of Digital Twins for Cotton Research and Management

Juan Landivar<sup>1</sup>, Jinha Jung<sup>2</sup>, Akash Ashapure<sup>2</sup>, Anjin Chang<sup>2</sup>, Sungchan Oh<sup>2</sup>, Murilo Maeda<sup>3</sup>, Javier Osorio<sup>4</sup> and Thomas Gerik<sup>4</sup>, (1)Texas A&M AgriLife Research, Corpus Christi, TX, (2)Texas A&M University - Corpus Christi, Corpus Christi, TX, (3)Texas A&M AgriLife Extension, Lubbock, TX, (4)Texas A&M AgriLife, Temple, TX

### 2:15 PM Using Canepeo As a Tool for Measuring Early Season Vigor in Cotton Variety Trials

Mark Freeman, UGA, Statesboro, GA

2:30 PM Cotton Seeding Rate Effects on Plant Architecture and Lint Yield across Different Varieties in the Upper Southeast Coastal Plain Hunter Frame, Virginia Polytechnic Institute & State University, Blacksburg, VA

### 2:45 PM Soil Compaction and Its Impact on Soil Properties and Cotton Yield

**Gaylon Morgan**<sup>1</sup>, Haly Neely<sup>2</sup>, Brady P. Arthur<sup>2</sup> and J. Alex Thomasson<sup>2</sup>, (1) Texas A&M AgriLife Extension Service, College Station, TX, (2)Texas A&M University, College Station, TX

### COTTON AGRONOMY, PHYSIOLOGY & SOIL - WEDNESDAY EARLY AF-TERNOON - PHD STUDENT COMPETITION

### Galerie 6 (New Orleans Marriott) - 1:00 PM-3:15 PM

### 1:00 PM Effect of Nematode Control Practices on Profitability of Cotton Production

Darrin M. Dodds<sup>1</sup>, Seth A. Byrd<sup>2</sup>, Savana Davis<sup>1</sup> and **Bradley R. Wilson**<sup>3</sup>, (1) Mississippi State University, Mississippi State, MS, (2)Oklahoma State University - Southwest Research and Extension Center, Stillwater, OK, (3)Oklahoma State University, Stillwater, OK

### 1:15 PM Evaluation of Phosphorus and Potassium Application Methods and Rates on Cotton Lint Yield and Fiber Quality

**Amee Bumguardner**, Texas Tech University, Lubbock, TX, Katie L. Lewis, Texas A&M AgriLife Research and Extension Center, Lubbock, TX and George LeGrande, Wilbur Ellis, Stephenville, TX

### 1:30 PM Impacts on Cotton Fiber Quality from Multi-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 and Edward M. Barnes, Cotton Incorporated, Cary, NC

### 1:45 PM Proximal and Unmanned Aerial Remote Sensing for Monitoring Crop Growth and Stress

Jeff Siegfried and Nithya Rajan, Texas A&M University, College Station, TX

### 2:00 PM A Novel Evaluation of Soil Health in Semi-Arid Texas Cotton Production

Joseph Alan Burke, Texas A&M University, College Station, TX, Katie L. Lewis, Texas A&M AgriLife Research and Extension Center, Lubbock, TX and Paul DeLaune, Texas A&M AgriLife Research, Vernon, TX

### 2:15 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>, Savana Davis<sup>1</sup>, Lucas Xavier Franca<sup>1</sup>, Bradley Norris<sup>1</sup> and John J Williams<sup>1</sup>, (1)Mississippi State University, Mississippi State, MS, (2)University of Nebraska - Lincoln, North Platte, NE

### 2:30 PM Making the Replant Decision: Utilizing an Aerial Platform and Surface Regression Modeling

**Shawn Butler**<sup>1</sup>, Tyson B Raper<sup>1</sup> and Michael Buschermohle<sup>2</sup>, (1)University of Tennessee, Jackson, TN, (2)University of Tennessee, Knoxville, TN

### 2:45 PM Irrigation and Varietal Impacts on Cotton (*Gossypium hirsutum*) Fruit Partitioning

John J Williams, Darrin M. Dodds, Lucas Xavier Franca, Jacob P. McNeal, Savana Davis and Bradley Norris, Mississippi State University, Mississippi State, MS

### 3:00 PM Assessing Reniform Nematode Resistant Cotton Lines Using Classical Growth Analysis

**Bhupinder Singh**<sup>1</sup>, Daryl Chastain<sup>1</sup>, John L. Snider<sup>2</sup>, K. Raja Reddy<sup>3</sup>, Jason Krutz<sup>1</sup> and Sally Stetina<sup>4</sup>, (1)Mississippi State University, Stoneville, MS, (2) University of Georgia, Tifton, GA, (3)Mississippi State University, Starkville, MS, (4)USDA-ARS, Stoneville, MS

### COTTON AGRONOMY, PHYSIOLOGY & SOIL - WEDNESDAY LATE AFTERNOON

### Galerie 5 (New Orleans Marriott) - 3:30 PM-4:45 PM

### 3:30 PM Mississippi's Centennial Rotation - 2004-2018

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

### 3:45 PM Cover Crop and Crop Rotation Effects on Cotton Production

**Paul DeLaune**<sup>1</sup>, Partson Mubvumba<sup>1</sup>, Katie L. Lewis<sup>2</sup> and Charles Coufal<sup>1</sup>, (1) Texas A&M AgriLife Research, Vernon, TX, (2)Texas A&M AgriLife Research and Extension Center, Lubbock, TX

### 4:00 PM Allelopathic Effect of Cover Crops on Germination and Early Seedling Growth of Cotton (Gossypium hirsutum)

Avat Shekoofa, Sara Safikhan, Tyson Raper and Shawn Butler, University of Tennessee, Jackson, TN

### 4:15 PM Chemical Stalk Destruction of 2,4-D Tolerant Cotton in South Texas

Josh McGinty<sup>1</sup>, Gaylon Morgan<sup>2</sup> and Dale A. Mott<sup>2</sup>, (1)Texas A&M AgriLife Extension Service, Corpus Christi, TX, (2)Texas A&M AgriLife Extension Service, College Station, TX

#### 4:30 PM Effects of Various Rates and Application Timings of Pentia (PGR) on Multiple Cotton Varieties

**Dale A. Mott**<sup>1</sup>, Gaylon Morgan<sup>1</sup>, Brandon Ripple<sup>2</sup>, Heath R Reeves<sup>3</sup> and Richard R Minzenmayer<sup>4</sup>, (1)Texas A&M AgriLife Extension Service, College Station, TX, (2)Ripple Agricultural Research, Inc., San Angelo, TX, (3)BASF, Corpus Christi, TX, (4)BASF, Ballinger, TX

### **COTTON AGRONOMY, PHYSIOLOGY & SOIL - BUSINESS MEETING**

Galerie 5 (New Orleans Marriott) - 5:00 PM-7:00 PM

### Thursday, January 10, 2019

#### COTTON AGRONOMY, PHYSIOLOGY & SOIL - THURSDAY LATE MORN-ING - AWARDS SESSION

Galerie 5 (New Orleans Marriott) - 9:00 AM-10:30 AM

## **Cotton Disease Council**

### Wednesday, January 9, 2019

### COTTON DISEASE COUNCIL - WEDNESDAY EARLY MORNING

### Galerie 1 (New Orleans Marriott) - 8:00 AM-10:00 AM

### 8:00 AM The Past and Current Impact of *Fusarium Oxysporum* f. sp. *Vasinfectum* Race 4 on Cotton Production in California

Margaret L Ellis, California State University, Fresno, Fresno, CA, Josue Diaz, California State University Fresno, Fresno, CA, Robert B Hutmacher, University of California, Shafter Research & Extension Center, Five Points, CA and Mauricio Ulloa, USDA-ARS, Lubbock, TX

### 8:20 AM Long-Term Management Options and Observations with Fusarium Race 4 in California

**Robert B Hutmacher**, University of California, Shafter Research & Extension Center, Five Points, CA, Mauricio Ulloa, USDA-ARS, Lubbock, TX and Margaret L Ellis, California State University, Fresno, Fresno, CA

### 8:40 AM FOV4 in Texas: What's Happening Now and Looking Toward the Future

Thomas Isakeit, Texas A&M University, College Station, TX, Jason Woodward, Department of Plant and Soil Science, Texas Tech University, Lubbock, TX, Orlando Flores, Texas A&M AgriLife Extension, El Paso, TX, Mauricio Ulloa, USDA-ARS, Lubbock, TX, Terry A. Wheeler, Texas A&M AgriLife Research, Lubbock, TX and Robert L. Nichols, Cotton Incorporated, Cary, NC

### 9:00 AM Distribution, Detection, Evolutionary Relationship, and Pathogenicity of the Four Sub-Genotypes of Race 4 (VCG0114) of Fusarium Wilt Pathogen of Cotton

Jinggao Liu<sup>1</sup>, Alois A. Bell<sup>2</sup>, Aixing Gu<sup>3</sup>, Jim Olvey<sup>4</sup>, Tanya A. Wagner<sup>1</sup>, Javlon Tashpulatov<sup>5</sup>, Sandria Prom<sup>6</sup>, Jose Quintana<sup>1</sup> and Robert L. Nichols<sup>7</sup>, (1) USDA-ARS, College Station, TX, (2)USDA-ARS ICCDRU, College Station, TX, (3)Xinjiang Agricultural University, Urumqi, China, (4)O&A Enterprises, Maricopa, AZ, (5)USDA ARS, Southern Plains Agricultural Research Center, College Station, TX, (6)Texas A&M University, College Station, TX, (7)Cotton Incorporated, Cary, NC

### 9:20 AM Dissecting the Disease Mechanism of Fusarium Oxysporum f. Sp. Vasinfectum Race 4 (Fov4) in Cotton

Libo Shan<sup>1</sup>, Liang Kong<sup>1</sup>, Zunyong Liu<sup>1</sup>, Pierce Jamieson<sup>1</sup>, Terry A. Wheeler<sup>2</sup>, Jason Woodward<sup>3</sup>, Jane K Dever<sup>4</sup>, Steve Hague<sup>1</sup>, Mauricio Ulloa<sup>5</sup> and Ping He<sup>1</sup>, (1)Texas A&M University, College Station, TX, (2)Texas A&M AgriLife Research, Lubbock, TX, (3)Department of Plant and Soil Science, Texas Tech University, Lubbock, TX, (4)Texas A&M AgriLife Research and Extension Center, Lubbock, TX, (5)USDA-ARS, Lubbock, TX

### 9:40 AM Experiences in Diagnosis of Symptoms and Progression of FOV4 in Pima and Upland Cotton

Mauricio Ulloa, USDA-ARS, Lubbock, TX, Robert B Hutmacher, University of California, Shafter Research & Extension Center, Five Points, CA, Margaret L Ellis, California State University, Fresno, Fresno, CA and Robert L. Nichols, Cotton Incorporated, Cary, NC

### COTTON DISEASE COUNCIL - WEDNESDAY LATE MORNING

### Galerie 1 (New Orleans Marriott) - 10:30 AM-12:00 PM

### 10:30 AM Aerial Remote Sensing Surveys of Fusarium Wilt of Cotton Near El Paso, Texas

**Chenghai Yang**, USDA-ARS, College Station, TX, Thomas Isakeit, Texas A&M University, College Station, TX and Robert L. Nichols, Cotton Incorporated, Cary, NC

### 10:50 AM Panel Discussion

11:20 AM Break

### 11:30 AM A Historical Review of the National Cottonseed Treatment Program: 1995-2017

Rachel R. Guyer<sup>1</sup>, Thomas W. Allen<sup>2</sup>, J. D. Barham<sup>3</sup>, William Barnett<sup>4</sup>, M. B. Bayles<sup>5</sup>, Alan Beach<sup>6</sup>, Jacobo Caceres<sup>2</sup>, P. D. Colyer<sup>7</sup>, T. Kelley<sup>5</sup>, Robert C. Kemerait<sup>8</sup>, Gary W. Lawrence<sup>9</sup>, Kathy S. Lawrence<sup>10</sup>, Hillary L. Mehl<sup>11</sup>, Melvin A. Newman<sup>1</sup>, Guy Padgett<sup>12</sup>, Patrick M. Phipps<sup>13</sup>, Paul Price<sup>14</sup>, Craig Rothrock<sup>15</sup>, Greta Schuster<sup>16</sup>, Gabe Sciumbato<sup>2</sup>, Terry Spurlock<sup>17</sup>, R. Thacker<sup>5</sup>, Laval M. Verhalen<sup>5</sup>, Scott Winters<sup>15</sup>, Jason Woodward<sup>18</sup> and Heather Kelly<sup>1</sup>, (1)University of Tennessee, Jackson, TN, (2) Mississippi State University, Stoneville, MS, (3)University of Arkansas Division of Agriculture, Hope, AR, (4)NEREC - University of Arkansas Division of Agriculture, Little Rock, AR, (5)Oklahoma State University, Stillwater, OK, (6)University of Arkansas, Newport, AR, (7)LSU AgCenter, Bossier City, LA, (8)University of Georgia, Tifton, GA, (9) Mississippi State University, Starkville, MS, (10)Auburn University, Auburn, AL, (11) Virginia Tech Tidewater AREC, Suffolk, VA, (12) Louisiana State University, Alexandria, LA, (13) Virginia Tech, Blacksburg, VA, (14) Louisiana State University, Winnsboro, LA, (15)University of Arkansas, Fayetteville, AR, (16) Texas A&M University Kingsville, Kingsville, TX, (17)University of Arkansas, Monticello, AR, (18) Department of Plant and Soil Science, Texas Tech University, Lubbock, TX

#### 11:45 AM Current Methods of the National Cottonseed Treatment Program and Proposed Changes in Protocol

Shelly Neill Pate<sup>1</sup>, Heather Kelly<sup>1</sup>, Rachel R. Guyer<sup>1</sup>, Kathy S. Lawrence<sup>2</sup>, Thomas W. Allen<sup>3</sup>, M. B. Bayles<sup>4</sup>, P. D. Colyer<sup>5</sup>, Hillary Mehl<sup>6</sup>, Paul Price<sup>7</sup>, Terry Spurlock<sup>8</sup> and Jason Woodward<sup>9</sup>, (1)University of Tennessee, Jackson, TN, (2) Auburn University, Auburn, AL, (3)Mississippi State University, Stoneville, MS, (4)Oklahoma State University, Stillwater, OK, (5)LSU AgCenter, Bossier City, LA, (6)Virginia Tech, Suffolk, VA, (7)Louisiana State University, Winnsboro, LA, (8)University of Arkansas, Monticello, AR, (9)Department of Plant and Soil Science, Texas Tech University, Lubbock, TX

### **COTTON DISEASE COUNCIL - STUDENT PAPER COMPETITION**

### Galerie 1 (New Orleans Marriott) - 2:00 PM-3:30 PM

2:00 PM Systemic Response Stimulated by Bacillus Sp. Can Manage Meloidogyne Incognita Population Density in Gossypium hirsutum Kaitlin Gattoni, Ni Xiang, Bisho Ram Lawaju, Kathy S. Lawrence and Joseph Kloepper, Auburn University, Auburn, AL

### 2:15 PM In vitro Effect of Fungicides on Corynespora cassiicola Isolates from Cotton and Soybean in Alabama

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

### 2:30 PM Yield Response of Cotton Cultivars to Root-Knot and Reniform Nematodes in Alabama

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

#### 2:45 PM Evaluation of the Temporal and Spatial Occurrence of Fusarium Oxysporum f. Sp. Vasinfectum (FOV) Races as Influenced by Selected Cotton Genotypes in the National Cotton Fusarium Wilt Evaluation Field in Alabama

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

### 3:00 PM Assessment of Cotton Root Protection by Fluopyram-Treated Seed Against Meloidogyne Incognita

Tracy E Hawk, University of Arkansas, Fayetteville, AR and Travis R. Faske, University of Arkansas Division of Agriculture, Lonoke, AR

### COTTON DISEASE COUNCIL - WEDNESDAY LATE AFTERNOON

### Galerie 1 (New Orleans Marriott) - 4:00 PM-5:00 PM

4:00 PM Discovery of the Exotic Cotton Leaf Roll Dwarf Virus, Causal Agent of Blue Disease in the Southeastern US Judith K Brown, University of Arizona, Tucson, AZ

### 4:15 PM Cotton Blue Disease Caused by Cotton Leafroll Dwarf Virus Identification, Symptomology and Occurrence in Alabama

Kathy S. Lawrence<sup>1</sup>, Austin Hagan<sup>1</sup>, Edward Sikora<sup>1</sup>, Kassie Conner<sup>1</sup>, Drew Schrimsher<sup>2</sup>, Alana Lynn Jacobson<sup>1</sup>, Jenny Koebernick<sup>1</sup> and Judith K Brown<sup>3</sup>, (1)Auburn University, Auburn, AL, (2)Agri-AFC, Slocomb, AL, (3)University of Arizona, Tucson, AZ

### 4:30 PM Survey of Cotton Viruses in Mid-Southern States

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

### COTTON DISEASE COUNCIL BUSINESS MEETING

### Galerie 1 (New Orleans Marriott) - 5:00 PM-7:00 PM

### 5:00 PM Bacterial Blight Report for the U.S. in 2018

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

### Thursday, January 10, 2019

### COTTON DISEASE COUNCIL - THURSDAY EARLY MORNING

### Galerie 1 (New Orleans Marriott) - 8:00 AM-10:00 AM

### 8:00 AM Managing Fusarium Wilt in Georgia: Comparative Efficacy of Three Nematicides

**Robert C. Kemerait**<sup>1</sup>, Robert L. Nichols<sup>2</sup>, D. Scott Carlson<sup>3</sup> and Justin Hand<sup>1</sup>, (1)University of Georgia, Tifton, GA, (2)Cotton Incorporated, Cary, NC, (3)UGA Cooperative Extension Service - Tift County, Tifton, GA

#### 8:15 AM Beltwide Nematode Research and Education Committee Report on Field Performance of Seed-Applied and Soil-Applied Nematicides, 2018

Travis R. Faske, University of Arkansas Division of Agriculture, Lonoke, AR, Thomas W. Allen, Mississippi State University, Delta Research and Extension Center, Stoneville, MS, Z. Grabau, University of Florida, Quincy, FL, Robert C. Kemerait, University of Georgia, Tifton, GA, Kathy S. Lawrence, Auburn University, Auburn, AL, Hillary L. Mehl, Virginia Tech Tidewater AREC, Suffolk, VA, Charlie Overstreet, Louisiana State University, Baton Rouge, LA, Lindsey D. Thiessen, NC State University, Raleigh, NC and Terry A. Wheeler, Texas A&M AgriLife Research, Lubbock, TX

### 8:30 AM Evaluating Strategies for Managing Southern Root Knot Nematode in Colquitt County, Georgia

Jeremy M. Kichler, University of Georgia Cooperative Extension, Moultrie, GA and Robert C. Kemerait, University of Georgia, Tifton, GA

#### 8:45 AM Impacts of Winter Brassica Carinata and Summer Crop Rotation on Nematode Management

Zane J. Grabau<sup>1</sup>, Ramdeo Seepaul<sup>2</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

### 9:00 AM A Novel Variant of Gh\_D02G0276 Is Required for Root-Knot Nematode Resistance on Chromosome 14 (D02) in Upland Cotton

**Martin Wubben**<sup>1</sup>, Gregory N. Thyssen<sup>2</sup>, Franklin E. Callahan<sup>3</sup>, David D. Fang<sup>2</sup>, Dewayne D. Deng<sup>3</sup>, Jack C. McCarty<sup>3</sup>, Ping Li<sup>2</sup>, Md S Islam<sup>4</sup> and Johnie N. Jenkins<sup>3</sup>, (1)USDA ARS, Mississippi State, MS, (2)Cotton Fiber Bioscience Research Unit, USDA-ARS-SRRC, New Orleans, LA, (3)USDA-ARS, Mississippi State, MS, (4)USDA ARS, Canal Point, FL

#### 9:15 AM Phenotypic and Genotypic Evaluation of Gossypium hirsutum Accessions Previously Identified in the Literature as Resistant to Root-Knot or Reniform Nematode

Amanda Gaudin<sup>1</sup>, Martin Wubben<sup>2</sup>, Franklin E. Callahan<sup>3</sup>, Dewayne D. Deng<sup>3</sup>, Jack C. McCarty<sup>3</sup> and Johnie N. Jenkins<sup>3</sup>, (1)USDA-ARS, Crop Science Research Laboratory, Mississippi State, MS, (2)USDA ARS, Mississippi State, MS, (3) USDA-ARS, Mississippi State, MS

### 9:30 AM Effect of Verticillium Wilt and Bacterial Blight on Commercial Cotton Varieties in 2018

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

### 9:45 AM Reaction of Cotton Cultivars and Breeding Lines to Areolate Mildew in Alabama

**Austin Hagan**<sup>1</sup>, Kira L. Bowen<sup>1</sup>, Katherine Burch<sup>1</sup>, H. Brad Miller<sup>2</sup>, Don Moore<sup>3</sup> and Larry Wells<sup>4</sup>, (1)Auburn University, Auburn, AL, (2)Brewton Agricultural Research Unit, Brewton, AL, (3)Prattville Agricultural Research Unit, Prattville, AL, (4)Wiregrass Research and Extension Center, Headland, AL

### COTTON DISEASE COUNCIL - THURSDAY LATE MORNING

### Galerie 1 (New Orleans Marriott) - 10:30 AM-12:00 PM

### 10:30 AM Reaction of Cotton Cultivars and Breeding Lines to Target Spot in Alabama

**Kira L. Bowen**<sup>1</sup>, Austin Hagan<sup>1</sup>, Katherine Burch<sup>1</sup>, H. Brad Miller<sup>2</sup>, Don Moore<sup>3</sup> and Larry Wells<sup>4</sup>, (1)Auburn University, Auburn, AL, (2)Brewton Agricultural Research Unit, Brewton, AL, (3)Prattville Agricultural Research Unit, Prattville, AL, (4)Wiregrass Research and Extension Center, Headland, AL

### 10:45 AM Challenges in Working with Corynespora Cassiicola, to Develop Phenotyping Protocols

Jenny Koebernick, Carly Moore, Kira L. Bowen and Austin Hagan, Auburn University, Auburn, AL

### 11:00 AM Efficacy and Yield Protection to Fungicide Inputs for the Control of Foliar Diseases in Cotton

Austin Hagan<sup>1</sup>, Kira L. Bowen<sup>1</sup>, Katherine Burch<sup>1</sup>, Malcomb Pegues<sup>2</sup>, Jarrod R. Jones<sup>2</sup> and H. Brad Miller<sup>3</sup>, (1)Auburn University, Auburn, AL, (2)Gulf Coast Research and Extension Center, Fairhope, AL, (3)Brewton Agricultural Research Unit, Brewton, AL

### 11:15 AM Management of Target Spot in Georgia with Fungicide Selection and Chemigation

**Robert C. Kemerait**<sup>1</sup>, Calvin Perry<sup>2</sup>, Bobby J. Washington<sup>2</sup> and Ma. Katrina Laurel<sup>3</sup>, (1)University of Georgia, Tifton, GA, (2)University of Georgia, Camilla, GA, (3)Department of Plant Pathology, the University of Georgia, Tifton, GA

### 11:30 AM Overview of Phytogen Cotton Breeding Traits

Jason Woodward<sup>1</sup>, Russell C Nuti<sup>2</sup>, Steven M Brown<sup>3</sup>, Ken Lege<sup>1</sup>, Ben Benton<sup>1</sup>, Sterling Brooks Blanche<sup>4</sup>, Chad Brewer<sup>1</sup>, Jennifer Crawford<sup>1</sup>, Thomas Eubank<sup>1</sup>, Scott W Fuchs<sup>5</sup>, Robert Lemon<sup>6</sup>, Chris L Main<sup>7</sup>, Mustafa McPherson<sup>8</sup> and Jacob Rieff<sup>1</sup>, (1)Corteva Agriscience, Indianapolis, IN, (2)PhytoGen Seed Company, Shellman, GA, (3)PhytoGen Cottonseed, Tifton, GA, (4)Phytogen Cottonseed, Saint Joseph, LA, (5)PhytoGen Seed, LLC, San Angelo, TX, (6) PhytoGen Seed Company, Caldwell, TX, (7)PhytoGen, Medina, TN, (8)Phyto-Gen Seed Company, Leland, MS

## Cotton Economics and Marketing Conference

### Wednesday, January 9, 2019

### COTTON ECONOMIC OUTLOOK SYMPOSIUM

Mardi Gras Ballroom Salon D (New Orleans Marriott) - 10:30 AM-12:00 PM

10:30 AM Farm Policy Update Jody Campiche, National Cotton Council of America, Cordova, TN

### 11:00 AM Global Cotton Outlook

Stephen A. MacDonald, World Agricultural Outlook Board, USDA, Washington, DC

11:30 AM Cotton - the Tariff Market O. A. Cleveland, Mississippi State, Starkville, MS

COTTON ECONOMICS AND MARKETING - WEDNESDAY EARLY AFTER-NOON

Mardi Gras Ballroom Salon D (New Orleans Marriott) - 1:30 PM-3:15 PM

### 1:30 PM Prevented Planting Provision Influence on Cotton Producers' Late Planting Decision

**Chris Boyer**<sup>7</sup>, Aaron Smith<sup>1</sup>, Kevin Adkins<sup>2</sup> and Tyson Raper<sup>3</sup>, (1)University of Tennessee, Knoxville, TN, (2)University of Tennessee, Knoxville, Cedar Hill, TN, (3)University of Tennessee, Jackson, TN

1:50 PM Forecasting the U.S. Upland Cotton Season-Average Farm Price: An Application of a Futures Price-Based Model Leslie A. Meyer and Linwood A. Hoffman, USDA-ERS, Washington, DC

### 2:10 PM Estimating the Impact of Price Loss Coverage (PLC) for Texas Cotton Producers

William Thompson, Texas A&M AgriLife Extension Service, San Angleo, TX

2:30 PM Crop Condition, Progress, & Yield

**Jon Devine**, Cotton Incorporated, Cary, NC, Liu Bing, Liu, Texas Tech Department of Agricultural and Applied Economics, Lubbock, TX and Darren Hudson, Texas Tech University, Lubbock, TX

### **COTTON ECONOMICS AND MARKETING - POSTERS**

### Mardi Gras Ballroom Salon D (New Orleans Marriott) - 1:30 PM-5:00 PM

### 1. Panhandle Model Farms - 2018 Case Studies of Texas High Plains Agriculture

**DeDe L. Jones**, Texas A&M AgriLife Extension, Amarillo, TX and Will Keeling, Texas A&M AgriLife Extension, Lubbock, TX

### 2. Generic Base Acre Reallocation: Incorporating Risk Management Strategies into Farm Decision Tools

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

3. Premier Cotton Education -- Marketing and Risk Management Danny J Nusser, Texas A&M AgriLife Extension, Amarillo, TX

### 4. Evaluating the Current Production Practices to Improve the Efficiency in Cotton Production

Yangxuan Liu, University of Georgia, Tifton, GA and Mark Freeman, UGA, Statesboro, GA

5. Economic Analysis on Cover Crops in the Southern High Plains Jeff Pate<sup>1</sup>, Donna McCallister<sup>2</sup> and Will Keeling<sup>1</sup>, (1)Texas A&M AgriLife Extension, Lubbock, TX, (2)Texas Tech University, Lubbock, TX

### COTTON ECONOMICS AND MARKETING - WEDNESDAY LATE AFTERNOON

### Mardi Gras Ballroom Salon D (New Orleans Marriott) - 4:00 PM-5:00 PM

4:00 PM Estimated Impacts of Increasing Indian Cotton Minimum Support Price in 2018/19 on the U.S. and Indian Cotton Markets Darren Hudson and Bing Liu, Texas Tech University, Lubbock, TX

**4:20 PM** Effects of China's Cotton Tariff on the World Cotton Trade Darren Hudson and Bing Liu, Texas Tech University, Lubbock, TX

**4:40 PM Evaluating Cotton Production Economics in Azerbaijan John R.C. Robinson**<sup>1</sup>, Dean A. McCorkle<sup>2</sup> and Daniel D. Hanselka<sup>2</sup>, (1)Texas A&M University, College Station, TX, (2)Texas A&M AgriLife Extension Service, College Station, TX

### Thursday, January 10, 2019

#### COTTON ECONOMICS AND MARKETING - THURSDAY EARLY MORN-ING

Mardi Gras Ballroom Salon D (New Orleans Marriott) - 8:00 AM-10:30 AM

8:00 AM Optimal Robotic Utilization for Cotton Production Terry W Griffin and Gregory Ibendahl, Kansas State University, Manhattan, KS

### 8:20 AM Economic Analysis of Irrigation Scheduling Method on Cotton Production in Georgia and North Carolina

Yangxuan Liu<sup>1</sup>, Anukul Bhattarai<sup>2</sup>, John L. Snider<sup>1</sup> and Guy D. Collins<sup>3</sup>, (1) University of Georgia, Tifton, GA, (2)University of Georgia, Athens, GA, (3) North Carolina State University, Rocky Mount, NC

#### 8:40 AM Economic Comparison of Cover Crop Use in Texas High Plains Cotton

Katie L. Lewis<sup>1</sup>, J. Wayne Keeling<sup>1</sup>, Donna McCallister<sup>2</sup>, Paul DeLaune<sup>3</sup>, Joseph A. Burke<sup>4</sup> and **Will Keeling**<sup>5</sup>, (1)Texas A&M AgriLife Research and Extension Center, Lubbock, TX, (2)Texas Tech University, Lubbock, TX, (3) Texas A&M AgriLife Research, Vernon, TX, (4)Department of Plant and Soil Science, Texas Tech University, Lubbock, TX, (5)Texas A&M AgriLife Extension, Lubbock, TX

#### 9:00 AM Examining Cotton Yields Resulting from the Use of Various Irrigation Systems in the Texas South Plains Using Propensity-Score Matching

Jorge Romero-Habeych, Darren Hudson and Phil Johnson, Texas Tech University, Lubbock, TX

### 9:20 AM Impact of Using Guar as a Rotation Crop on Cotton Production in American Southwest

Ram N Acharya, Kulbhushan Grover, Paul H Gutierrez and Joram Robbs, New Mexico State University, Las Cruces, NM

### 9:40 AM Economic Analysis of Seeding Rate and Planter Downforce in Singulated and Hill-Drop Planted Cotton

Yangxuan Liu, Simerjeet S. Virk, Wesley M. Porter, Jared R. Whitaker and John L. Snider, University of Georgia, Tifton, GA

#### 10:00 AM A Fieldprint Calculator Analysis of Resource and Cost Efficiencies in the Southern High Plains

Donna McCallister and Phil Johnson, Texas Tech University, Lubbock, TX

## Cotton Engineering-Systems Conference

### Wednesday, January 9, 2019

### COTTON SUSTAINABILITY SESSION - WEDNESDAY MORNING

Preservation Hall Studio 4 (New Orleans Marriott) - 8:00 AM-12:00 PM

8:00 AM Sustainability Task Force Ted Schneider, Grower, Cordova, TN

8:20 AM US Cotton Sustainability Goals Jesse Daystar, Cotton Incorporated, Cary, NC

8:40 AM US Cotton Industry Sustainability Program Gary Adams, National Cotton Council, Cordova, TN

9:00 AM Field to Market and the Fieldprint Platform Lexi Clark, Field to Market, Washington, DC

9:20 AM Integrating Sustainability into Extension Lori Duncan, University of Tennessee, Knoxville, TN

9:40 AM Metrics for Improving Water Efficiency Wesley M. Porter, University of Georgia, Tifton, GA

10:00 AM Break

10:15 AM Economics of Cotton Sustainability Adam Rabinowitz, University of Georgia, Tifton, Tifton, GA

10:35 AM Our Experience with the Fieldprint Platform Rachel Lee, NRCS, Winnsboro, LA and Kellon Lee, Grower, Winnsboro, LA

11:00 AM Panel Discussion: Sustainability and the Cotton Supply Chain -- perspectives from growers, brands, and retailers

### COTTON ENGINEERING-SYSTEMS - WEDNESDAY EARLY AFTERNOON

Preservation Hall Studio 4 (New Orleans Marriott) - 1:00 PM-3:15 PM

1:00 PM A Comparative Study of RGB and Multispectral Sensor Based Cotton Canopy Cover Modelling Using Multi-Temporal UAS Data Akash Ashapure<sup>1</sup>, Jinha Jung<sup>1</sup>, Murilo Maeda<sup>2</sup>, Anjin Chang<sup>1</sup>, Sungchan Oh<sup>3</sup>, Juan Landivar<sup>4</sup>, Steve Hague<sup>5</sup> and C. Wayne Smith<sup>5</sup>, (1)Texas A&M University - Corpus Christi, Corpus Christi, TX, (2)Texas A&M AgriLife Extension, Lubbock, TX, (3)Texas A&M University - Corpus Christi, Corpus Chisti, TX, (4) Texas A&M AgriLife Research, Corpus Christi, TX, (5)Texas A&M University, College Station, TX

1:15 PM Using an Unmanned Aerial System to Collect Mid-Season Multispectral Data for Estimation of Plant Nitrogen Status in Cotton David W Daughtry, Wesley M. Porter, Glendon Harris, John L. Snider and Reagan L Noland, University of Georgia, Tifton, GA

#### 1:30 PM A Plant-By-Plant Level Remote Sensing Classification Method for Cotton Root Rot Based on Uav Platform

**Tianyi Wang**, Texas A&M University, College Station Texas, TX and J. Alex Thomasson, Texas A&M University, College Station, TX

1:45 PM Considerations for Planter Downforce and Seeding Rate for Maximizing Emergence in Singulated Versus Hill-Drop Planted Cotton Simerjeet S. Virk, Wesley M. Porter, Jared R. Whitaker and John L. Snider, University of Georgia, Tifton, GA

### 2:00 PM Visual Row Detection Using Pixel-Based Algorithm and Stereo Camera for Cotton Picking Robot

Kadeghe Goodluck Fue, Wesley M. Porter and Glen C. Rains, University of Georgia, Tifton, GA

### 2:15 PM Visual Inverse Kinematics for Cotton Picking Robot

Kadeghe Goodluck Fue, Wesley M. Porter and Glen C. Rains, University of Georgia, Tifton, GA

### 2:30 PM Update on Calibrated Cotton Yield Monitor

Jianing He, Texas A&M University, College Station Texas, TX, J. Alex Thomasson, Texas A&M University, College Station, TX, John D. Wanjura, USDA-ARS Cotton Production and Processing Research Unit, Lubbock, TX and Mathew G. Pelletier, USDA ARS CPPRU, Lubbock, TX

**2:45 PM** An Initial Look at Robotics in Cotton Harvesting Hussein Gharakhani and J. Alex Thomasson, Texas A&M University, College Station, TX

### **COTTON ENGINEERING-SYSTEMS - WEDNESDAY LATE AFTERNOON**

### Preservation Hall Studio 4 (New Orleans Marriott) - 4:00 PM-5:00 PM

### 4:00 PM Initial Possibilities for Robotic Cotton Harvest

Edward M. Barnes<sup>1</sup>, Kater Hake<sup>1</sup>, Terry W Griffin<sup>2</sup>, Glen C. Rains<sup>3</sup>, Joe Mari J. Maja<sup>4</sup>, J. Alex Thomasson<sup>5</sup>, James A. Griffin<sup>6</sup>, Mathew G. Pelletier<sup>7</sup>, Marlowe Edgar C. Bruce<sup>4</sup>, Kadeghe Goodluck Fue<sup>3</sup>, Emi Kimura<sup>8</sup>, Gaylon Morgan<sup>9</sup>, Jon Devine<sup>1</sup>, Gregory Ibendahl<sup>2</sup> and Brian G. Ayre<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) USDA-ARS Cotton Production and Processing Research Unit, Lubbock, TX, (8)Texas A&M AgriLife Extension Service, College Station, TX, (10)University of North Texas, Denton, TX

**4:15 PM** Adaption of Mobile Robot Platform for Cotton Harvesting Marlowe Edgar C. 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

### 4:30 PM Directed Rx: A New Method for Variable Rate Nitrogen Prescription in Cotton

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

#### 4:45 PM Fiber Cohesion Effects on Energy Use during Processing and Fiber and Yarn Quality

**Robert G. Hardin**, Texas A&M University, College Station, TX, Christopher D. Delhom, USDA-ARS Southern Regional Research Center, New Orleans, LA

and Efrem Bechere, USDA-ARS, Stoneville, MS

### Thursday, January 10, 2019

### COTTON ENGINEERING-SYSTEMS - THURSDAY EARLY MORNING

### Preservation Hall Studio 4 (New Orleans Marriott) - 9:00 AM-10:00 AM

#### 9:00 AM 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

### 9:15 AM High Throughput Phenotyping (HTP) for Single Plant Using Unmanned Aerial System (UAS) Data in Cotton

Anjin Chang<sup>1</sup>, Jinha Jung<sup>1</sup>, Sungchan Oh<sup>1</sup>, Akash Ashapure<sup>1</sup>, Murilo Maeda<sup>2</sup>, Juan Landivar<sup>3</sup>, C. Wayne Smith<sup>4</sup> and Steve Hague<sup>4</sup>, (1)Texas A&M University - Corpus Christi, Corpus Christi, TX, (2)Texas A&M AgriLife Extension, Lubbock, TX, (3)Texas A&M AgriLife Research, Corpus Christi, TX, (4)Texas A&M University, College Station, TX

### 9:30 AM Artificial Neural Network Based Cotton Yield Estimation Using Unmanned Aerial System Data

Jinha Jung<sup>1</sup>, Akash Ashapure<sup>1</sup>, Anjin Chang<sup>1</sup>, Sungchan Oh<sup>2</sup>, Murilo Maeda<sup>3</sup>, Juan Landivar<sup>4</sup>, Steve Hague<sup>5</sup> and C. Wayne Smith<sup>5</sup>, (1)Texas A&M University - Corpus Christi, Corpus Christi, TX, (2)Texas A&M University - Corpus Christi, Corpus Chisti, TX, (3)Texas A&M AgriLife Extension, Lubbock, TX, (4)Texas A&M AgriLife Research, Corpus Christi, TX, (5)Texas A&M University, College Station, TX

#### 9:45 AM Estimation of Open Boll Count from Number of Cotton Sprout Using Unmanned Aerial System Images and Yolo, a Deep Learning Framework

**Sungchan Oh**<sup>1</sup>, Anjin Chang<sup>1</sup>, Akash Ashapure<sup>1</sup>, Jinha Jung<sup>1</sup>, Murilo Maeda<sup>2</sup>, Juan Landivar<sup>3</sup>, Steve Hague<sup>4</sup> and C. Wayne Smith<sup>4</sup>, (1)Texas A&M University - Corpus Christi, Corpus Christi, TX, (2)Texas A&M AgriLife Extension, Lubbock, TX, (3)Texas A&M AgriLife Research, Corpus Christi, TX, (4)Texas A&M University, College Station, TX

## **Cotton Ginning Conference**

### Wednesday, January 9, 2019

### **COTTON GINNING - WEDNESDAY EARLY AFTERNOON**

Preservation Hall Studios 2 - 3 (New Orleans Marriott) - 1:30 PM-3:15 PM

1:30 PM Quality of the 2018 Cotton Crop Robbie L Seals, USDA, AMS Cotton and Tobacco Program, Memphis, TN

**1:45 PM** Field Evaluation of Lummus Gin Machinery - 2018 Ross D. Rutherford<sup>1</sup>, David L. Arthur<sup>1</sup>, Mark D. Cory<sup>2</sup> and Joe W. Thomas<sup>2</sup>, (1) Lummus Corporation, Lubbock, TX, (2)Lummus Corporation, Savannah, GA

2:00 PM Maximizing Ginning System Efficiencies Michael Greene, Cherokee Fabrication, Salem, AL

2:15 PM New Product Developments from Lummus Mark D. Cory<sup>1</sup>, Joe W. Thomas<sup>1</sup> and Ross D. Rutherford<sup>2</sup>, (1)Lummus Corporation, Savannah, GA, (2)Lummus Corporation, Lubbock, TX

2:30 PM Gin Utilization of RFID Technology

Rene G Garcia, Edcot COOP Gin, Robstown, TX

2:45 PM Update on the Development of a System for Tracking Modules Using RFID Technology

**John D. Wanjura**, Greg A. Holt and Mathew G. Pelletier, USDA ARS CPPRU, Lubbock, TX

**3:00 PM** Round Cotton Module Handling Efficiency Robert G. Hardin, Texas A&M University, College Station, TX and Tianyi Wang, Texas A&M University, College Station Texas, TX

### **COTTON GINNING - WEDNESDAY LATE AFTERNOON**

Preservation Hall Studios 2 - 3 (New Orleans Marriott) - 3:30 PM-5:30 PM

3:30 PM Preserve Your Profits Quality Seed Management Michael Prachar, Tri-States Grain Conditioning, Spirit Lake, IA

### 3:45 PM Testing of a Plastic Detection and Removal System for Round Module Wrap on the Gin Stand Feeder Apron

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

**4:00 PM** Bringing Optical Sorting Options to the Cotton Industry Jeff Smith and Steve Travis, Bratney Companies, Des Moines, IA

### 4:15 PM Experience from Installation and Operation of Plastic Detection/Removal Systems in Two Commercial Gins

**Mathew G. Pelletier**<sup>1</sup>, Gregory 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>, Kevin Tran<sup>2</sup>, Ivan Bader<sup>2</sup>, Juan Garcia<sup>2</sup> and Marcus Gray<sup>2</sup>, (1)USDA-ARS Cotton Production and Processing Research Unit, Lubbock, TX, (2)USDA ARS, Lubbock, TX, (3)USDA-ARS Southwestern Cotton Ginning Research Laboratory, Mesilla Park, NM

### 4:30 PM Tama USA

Mike Bieber, Tama USA, Boonville, MO

4:45 PM Cotton Sort -- Proof of Concept

Ruixiu Sui and Tim Hayes, USDA-ARS, Stoneville, MS

### 5:00 PM On-Gin Detection of Plastic Contaminants in Seed Cotton Using Hybrid Color and Laser-Scattering Images

Jue Hou<sup>1</sup>, Wenbin Wenbin<sup>1</sup>, **Bugao Xu**<sup>1</sup> and Mathew G. Pelletier<sup>2</sup>, (1)University of North Texas, Denton, TX, (2)USDA-ARS Cotton Production and Processing Research Unit, Lubbock, TX

### 5:15 PM Preparing for Wet Cotton

Bill Lipsey, Lipsey GinTech, Inc., Indianola, MS

### Thursday, January 10, 2019

### **COTTON GINNING - THURSDAY EARLY MORNING**

Preservation Hall Studios 2 - 3 (New Orleans Marriott) - 8:15 AM-11:30 AM

8:15 AM An Update on Seed Size and Hull Strength Issues Michael K. Dowd<sup>1</sup>, Christopher D. Delhom<sup>1</sup> and Scott M Pelitire<sup>2</sup>, (1)US-DA-ARS Southern Regional Research Center, New Orleans, LA, (2)USDA-ARS, New Orleans, LA

8:30 AM Seed Size Considerations in Cotton Variety Development Jane K Dever, Texas A&M AgriLife Research, Lubbock, TX

8:45 AM Panel Discussion - Cottonseed Size for Better or Worse Greg A. Holt, USDA ARS CPPRU, Lubbock, TX

9:00 AM Panel Discussion - Cottonseed Size for Better or Worse - Producer/Ginner

Richard Kelley, Burlison Gin, Burlison, TN

9:10 AM Panel Discussion - Cottonseed Size for Better or Worse - Oil Mill

Robert Lacy, PYCO Industries, Inc., Lubbock, TX

9:20 AM Panel Discussion - Cottonseed Size for Better or Worse - Whole Cottonseed Buyer Nigel Adcock, Cottonseed LLC - Cottonseed to Cows, La Crosse, WI

9:30 AM Panel Discussion - Cottonseed Size for Better or Worse - Gin Equipment Manufacturer Joe W. Thomas, Lummus Corporation, Savannah, GA

9:40 AM Panel Discussion - Cottonseed Size for Better or Worse - TAMU Jane K Dever, Texas A&M AgriLife Research and Extension Center, Lubbock, TX

9:50 AM Panel Discussion - Cottonseed Size for Better or Worse - USDA/ ARS

Michael K. Dowd, USDA-ARS Southern Regional Research Center, New Orleans, LA

**10:00 AM Evaluation of Prototype High-Capacity Roller-Gin Reclaimers Derek P. Whitelock**<sup>1</sup>, Carlos B. Armijo<sup>1</sup>, Paul A. Funk<sup>1</sup> and Joe W. Thomas<sup>2</sup>, (1) USDA-ARS Southwestern Cotton Ginning Research Laboratory, Mesilla Park, NM, (2)Lummus Corporation, Savannah, GA

### 10:15 AM Saving Energy in Cotton Gins

**Paul Funk**, USDA-ARS-SW Cotton Gin Research Lab, Mesilla Park, NM, Robert G Hardin IV, Texas A&M University, College Station, TX, Albert Terrazas, US-DA-ARS Southwestern Cotton Ginning Research Laboratory, Mesilla Park, NM and Kathleen M. Yeater, USDA-ARS, Fort Collins, CO

### 10:30 AM Variable Speed Belt - an Efficient Method to Controlling Incoming Feed

Mike Gvili, Advanced Sensing and Controls, Hudson, MA

10:45 AM Development of Stoneville Air-Bar Cotton Lint Cleaner Ruixiu Sui, USDA-ARS, Stoneville, MS

11:00 AM Student Paper Awards Robert G. Hardin, Texas A&M University, College Station, TX

## Cotton Improvement Conference

### Tuesday, January 8, 2019

### EMERGING TOPICS IN COTTON - A JOINT SYMPOSIUM BY IMPROVE-MENT, AGRONOMY AND DISEASE CONFERENCES

### Balconies I, J & K (New Orleans Marriott) - 12:30 PM-5:00 PM

Presiding: Ramesh Buyyarapu

### 12:30 PM Introductory Remarks

### 12:40 PM Genetic and Environmental Contributions to Cotton Yield and Fiber Quality in the Midsouth

Tyson B Raper<sup>1</sup>, John L. Snider<sup>2</sup>, Darrin M. Dodds<sup>3</sup>, Andrea S. Jones<sup>4</sup>, Bill Robertson<sup>5</sup>, Dan D. Fromme<sup>6</sup>, Tyler Sandlin<sup>7</sup>, Trey Cutts<sup>8</sup> and Ryan Blair<sup>1</sup>, (1) University of Tennessee, Jackson, TN, (2)University of Georgia, Tifton, GA, (3) Mississippi State University, Mississippi State, MS, (4)University of Missouri, Portageville, MO, (5)University of Arkansas, Newport, AR, (6)LSU AgCenter, Alexandria, LA, (7)Auburn University, Belle Mina, AL, (8)Yara North America, Inc., Tampa, FL

### 1:10 PM Impacts of Nitrogen and Sulfur Management across Commonly Grown Cotton Varieties

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

### 1:40 PM Trends in U.S. Commercial Cotton Variety Phenotypes and Impact on Crop Physiology and Management

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

### 2:10 PM Break

### 2:30 PM The Past and Current Impact of *Fusarium Oxysporum f. Sp.* Vasinfectum Race 4 on Cotton Production in California

Margaret L Ellis, California State University, Fresno, Fresno, CA, Josue Diaz, California State University Fresno, Fresno, CA, Robert B Hutmacher, University of California, Shafter Research & Extension Center, Five Points, CA and Mauricio Ulloa, USDA-ARS, Lubbock, TX

3:00 PM Fusarium Race 4 Upland Screening and Evaluation Mike Olvey and Jim Olvey, O&A Enterprises, Maricopa, AZ

#### **3:30 PM** Breeding for Fusarium Wilt Race 4 Resistance in Cotton Ramesh Buyyarapu<sup>1</sup>, Mustafa McPherson<sup>2</sup>, Timothy Anderson<sup>3</sup>, Joel Mahill<sup>3</sup>, Kelly Parliament<sup>1</sup> and John Pellow<sup>3</sup>, (1)Corteva Agriscience, Johnston, IA, (2)PhytoGen Seed Company, Leland, MS, (3)PhytoGen Seed Company, Corcoran, CA

4:00 PM Panel Discussion

### 4:55 PM Concluding Remarks

### Wednesday, January 9, 2019

### COTTON IMPROVEMENT - WEDNESDAY MORNING PLENARY LECTURE

### Galerie 2 (New Orleans Marriott) - 8:00 AM-8:35 AM

Presiding: Ramesh Buyyarapu

### 8:00 AM Introductory Remarks

### 8:05 AM Domestication and Genetic Diversity of Cultivated Cotton (G. hirsutum L.)

Josh Udall<sup>1</sup>, Doajun Yuan<sup>1</sup>, Lori Hinze<sup>2</sup>, Justin L Conover<sup>1</sup>, Corrinne E Gover<sup>1</sup> and Jonathan Wendel<sup>1</sup>, (1)Iowa State University, Ames, IA, (2)USDA-ARS, College Station, TX

### COTTON IMPROVEMENT - WEDNESDAY EARLY MORNING GERM-PLASM SESSION

### Galerie 2 (New Orleans Marriott) - 8:35 AM-10:00 AM

Presiding: Ramesh Buyyarapu

#### 8:35 AM Upcoming Nexgen Varieties

**Douglas J. Jost**, Americot, Garden City, TX and Brad Littlefield, Americot, Franklin, TN

8:50 AM Long Term Yield and Fiber Quality Trends in Deltapine Varieties Released from 1980 to 2018 David W Albers, Bayer Crop Science, St. Louis, MO

9:05 AM New Cotton Variety Introductions from BASF Kenny Melton, BASF, Lubbock, TX

9:20 AM UA212ne: A New Nectariless Cotton Variety Fred M. Bourland, University of Arkansas-NEREC, Keiser, AR

### **COTTON IMPROVEMENT - LIGHTNING TALKS STUDENT COMPETITION**

### Galerie 2 (New Orleans Marriott) - 10:30 AM-12:00 PM

Presiding: Jenny Koebernick

10:30 AM Introductory Remarks

10:35 AM Exploring Variation in AFIS Length Distribution of 8 F2 Populations (LT)

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

10:40 AM Using the HVI Fibrogram to Explain Variation in Yarn Quality (LT)

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

#### 10:45 AM Evaluation of Cotton Fibers Propensity to Break in F3 Breeding Lines (LT)

**Joao Paulo Saraiva Morais**<sup>1</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

10:50 AM Enhancing US Cotton Classing with Varietal Data (LT) Jacob W. James, Brendan Kelly and Eric F. Hequet, Texas Tech University, Lubbock, TX

10:55 AM Proof of Concept: Gene Based Breeding Vs Field Based Breeding (LT)

Drutdaman Bhangu, Texas A&M, College Station, TX

11:00 AM High-Throughput Phenotyping That Improves the Efficiency of a Cotton Plant Breeding System (LT) Wenzhuo Wu, Texas A&M University, College Station, TX

11:05 AM Utilization of Novel Alleles Found in Obsolete Germplasm for the Improvement of Upland Cotton (LT) Alexandra P Ullrich, TAMU Cotton Improvement Lab, Huntsville, TX

11:10 AM Development and Characterization of Chromosome Segment Substitution Lines (LT) Christian Hitzelberger, Texas A&M University, College Station, TX

11:15 AM Genome-Wide Spaced Simplex SNP Assays for Marker-Based Interspecific Germplasm Introgression and Genetic Manipulation in Cotton (LT)

Selfinaz Kubra Velioglu, Texas A&M University, College Station, TX

#### 11:20 AM Recombination Rates in Interspecific and Intraspecific Cotton Mapping Populations (LT)

Luis M De Santiago, Interdisciplinary Program in Genetics, Texas A&M University, College Station, TX, Yu-Ming Lin, Texas A&M University, College Station, TX, Mauricio Ulloa, USDA-ARS, Lubbock, TX and David M. Stelly, Texas A&M University System, College Station, TX

### 11:25 AM A Genome-Wide Association Study of Resistance to Fusarium Wilt and Bacterial Blight in US Upland Cotton Germplasm (LT)

Hanan Elassbli<sup>1</sup>, Abdelraheem Abdelraheem<sup>1</sup>, Vasu Kuraparthy<sup>2</sup>, David M. Stelly<sup>3</sup>, Lori Hinze<sup>4</sup>, Soum Sanogo<sup>1</sup>, Terry A. Wheeler<sup>5</sup>, Tom Wedegaertner<sup>6</sup> and Jinfa Zhang<sup>1</sup>, (1)New Mexico State University, Las Cruces, NM, (2)North Carolina State University, Raleigh, NC, (3)Texas A&M University System, College Station, TX, (4)USDA-ARS, College Station, TX, (5)Texas A&M AgriLife Research, Lubbock, TX, (6)Cotton Incorporated, Cary, NC

### 11:30 AM Pathogenicity Test of Fusarium Wilt and Screening Germplasm Lines for Fusarium Wilt Resistance in Cotton (LT)

Yi Zhu<sup>1</sup>, Abdelraheem Abdelraheem<sup>1</sup>, Soum Sanogo<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

### COTTON IMPROVEMENT - WEDNESDAY AFTERNOON PLENARY LEC-TURE

### Galerie 2 (New Orleans Marriott) - 1:25 PM-2:00 PM

Presiding: Ramesh Buyyarapu

#### 1:25 PM Introductory Remarks

#### 1:30 PM The Importance of Cotton Production Research to Meet the 10-year US Sustainability Goals

Jesse Daystar, Cotton Inc, Cary, NC

#### COTTON IMPROVEMENT - WEDNESDAY EARLY AFTERNOON GENETICS SESSION

### Galerie 2 (New Orleans Marriott) - 2:00 PM-3:00 PM

Presiding: Ramesh Buyyarapu

#### 2:00 PM An Early Cotton Breeding Giant: Jacob Osborne Ware (1888-1977)

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

#### 2:15 PM History and Success of the Regional Breeder Testing Network (RBTN)

Ted Wallace, Mississippi State University, Mississippi State, MS, Don Jones, Cotton Incorporated, Cary, NC and Gerald Myers, LSU Agricultural Center, Baton Rouge, LA

#### 2:30 PM A Multi-Parent Advanced Generation Inter-Cross Population for Genetic Study of Fiber Length Trait in Cotton (Gossypium hirsutum L.)

Marina Naoumkina<sup>1</sup>, Gregory N. Thyssen<sup>1</sup>, David D. Fang<sup>1</sup>, Johnie N. Jenkins<sup>2</sup>, Jack C. McCarty<sup>2</sup> and Christopher Florane<sup>1</sup>, (1)Cotton Fiber Bioscience Research Unit, USDA-ARS-SRRC, New Orleans, LA, (2)USDA-ARS, Mississippi State, MS

#### Mapping-By-Sequencing the Genetic Locus of Short Fiber 2:45 PM Mutant Ligon Lintless-y (liy)

David D. Fang<sup>1</sup>, Marina Naoumkina<sup>1</sup>, Gregory N. Thyssen<sup>2</sup>, Efrem Bechere<sup>3</sup> and Ping Li<sup>1</sup>, (1)Cotton Fiber Bioscience Research Unit, USDA-ARS-SRRC, New Orleans, LA, (2)Cotton Chemistry and Utilization Research Unit, US-DA-ARS-SRRC, New Orleans, LA, (3)USDA-ARS, Stoneville, MS

### **COTTON IMPROVEMENT - WEDNESDAY AFTERNOON DISEASE SES-**SION

### Galerie 2 (New Orleans Marriott) - 3:30 PM-5:00 PM

Presiding: Jenny Koebernick

#### 3:30 PM Introductory Remarks

Impact of Verticillium Wilt on Fiber Quality of Green-3:35 PM house-Grown Cotton (Gossypium hirsutum L.) Breeding Lines Addissu G Ayele, Terry Wheeler and Jane K Dever, Texas A&M AgriLife Research and Extension Center, Lubbock, TX

#### 3:50 PM Evaluation and Quantitative Trait Locus Mapping for Fusarium Wilt and Verticillium Wilt Resistance in an Intregressed MAGIC Population Derived from Intermating between Chromosome Substitution Lines and Upland Cotton

Abdelraheem Abdelraheem<sup>1</sup>, Yi Zhu<sup>1</sup>, Gregory N. Thyssen<sup>2</sup>, David D. Fang<sup>2</sup>, Johnie N. Jenkins<sup>3</sup>, Jack C. McCarty<sup>3</sup>, Tom Wedegaertner<sup>4</sup> and Jinfa Zhang<sup>1</sup>, (1)New Mexico State University, Las Cruces, NM, (2)Cotton Fiber Bioscience Research Unit, USDA-ARS-SRRC, New Orleans, LA, (3)USDA-ARS, Mississippi State, MS, (4)Cotton Incorporated, Cary, NC

### 4:05 PM Screening Cotton Germplasm for Fusarium Wilt Resistance in Georgia

**Edward Beasley**<sup>1</sup>, Peng Chee<sup>2</sup>, Robert C. Kemerait<sup>2</sup> and Nelson Dias Suassuna<sup>3</sup>, (1)UGA, Tifton, GA, (2)University of Georgia, Tifton, GA, (3)Brazilian Agricultural Research Corporation - EMBRAPA, Santo Antonio de Goias - GO, Brazil

### 4:20 PM A Genome-Wide Association Study of Fusarium Wilt Resistance in a MAGIC Population of Upland Cotton

Jinfa Zhang<sup>1</sup>, Yi Zhu<sup>1</sup>, Abdelraheem Abdelraheem<sup>1</sup>, Zhonghua Teng<sup>1</sup>, David D. Fang<sup>2</sup>, Gregory N. Thyssen<sup>2</sup>, Johnie N. Jenkins<sup>3</sup>, Jack C. McCarty<sup>3</sup> and Tom Wedegaertner<sup>4</sup>, (1)New Mexico State University, Las Cruces, NM, (2)Cotton Fiber Bioscience Research Unit, USDA-ARS-SRRC, New Orleans, LA, (3)US-DA-ARS, Mississippi State, MS, (4)Cotton Incorporated, Cary, NC

### 4:35 PM Experiences in Breeding for FOV4 Resistance/Tolerance in Upland and Molecular Breeding Opportunities

Mauricio Ulloa, USDA-ARS, Lubbock, TX

### Thursday, January 10, 2019

### COTTON IMPROVEMENT - THURSDAY MORNING PLENARY LECTURE

### Galerie 2 (New Orleans Marriott) - 8:00 AM-8:35 AM

Presiding: Jenny Koebernick

### 8:00 AM Introductory Remarks

#### 8:05 AM Leveraging Genomics and Phenomics to Unravel Stress-Adaptive Traits in Cotton Duke Pauli, University of Arizona, Tucson, AZ

#### COTTON IMPROVEMENT - THURSDAY EARLY MORNING OMICS SES-SION

### Galerie 2 (New Orleans Marriott) - 8:35 AM-10:00 AM

Presiding: Jenny Koebernick

#### 8:35 AM Using the Cottongen Breeding Information Management System for Cotton Improvement

Jing Yu<sup>1</sup>, Taein Lee<sup>1</sup>, Sook Jung<sup>1</sup>, Don Jones<sup>2</sup>, B. Todd Campbell<sup>3</sup>, Ksenija Gasic<sup>4</sup>, Jodi Humann<sup>1</sup> and Dorrie Main<sup>1</sup>, (1)Washington State University, Pullman, WA, (2)Cotton Incorporated, Cary, NC, (3)USDA-ARS, Florence, SC, (4)Clemson University, Clemson, SC

#### 8:50 AM Reference-Grade Genome Assemblies Facilitate Exploitation of Favorable Genetic Variations Underlying the Development of Superior Cotton Fibers

Maojun Wang, USDA-ARS-SRRC, New Orleans, LA

#### 9:05 AM Dissecting Quantitative Variation Introgressed into Upland Cotton Using QTL-Stacked Segregating Populations

Sameer Khanal<sup>1</sup>, Peng Chee<sup>1</sup> and Andrew Paterson<sup>2</sup>, (1)University of Georgia, Tifton, GA, (2)College of Agricultural and Environmental Sciences, The University of Georgia, Athens, GA

### 9:20 AM Characterization of Pentatricopeptide Repeat (PPR) Gene That Linked to Immature Fiber Phenotype

Hee Jin Kim<sup>1</sup>, Marina Naoumkina<sup>2</sup>, Gregory N. Thyssen<sup>2</sup>, David D. Fang<sup>2</sup>, Christopher Florane<sup>2</sup>, Ping Li<sup>2</sup> and Christopher D. Delhom<sup>3</sup>, (1)USDA-ARS, Southern Regional Research Center, New Orleans, LA, (2)Cotton Fiber Bioscience Research Unit, USDA-ARS-SRRC, New Orleans, LA, (3)USDA-ARS Southern Regional Research Center, New Orleans, LA

### 9:35 AM Quantification of Leaf Wax and Cutin Compounds for Improved Drought Tolerance in Upland and Pima Cotton

Alison L. Thompson, USDA-ARS, Maricopa, AZ, Pernell Tomasi, USDA-ARS-ALARC, Maricopa, AZ and Matthew Jenks, University of Arizona, Tucson, AZ

### COTTON GENETICS AWARD LECTURE

### Galerie 2 (New Orleans Marriott) - 10:30 AM-11:00 AM

Presiding: Ramesh Buyyarapu

### 10:30 AM Introductory Remarks

10:35 AM Cotton - An Incredible, All Natural, and Sustainable Fiber B. Todd Campbell, USDA-ARS, Florence, SC

### **COTTON IMPROVEMENT - AWARDS AND BUSINESS MEETING**

### Galerie 2(New Orleans Marriott) - 11:05 AM-12:00 PM

Presiding: Ramesh Buyyarapu

### 11:05 AM Introductory Remarks

### 11:10 AM Graduate Student Awards

### 11:20 AM 2019 Cotton Genetics Award

11:30 AM Business Meeting

## Cotton Insect Research and Control Conference

### Wednesday, January 9, 2019

### **COTTON INSECT RESEARCH & CONTROL ROUNDTABLE**

Galerie 3 (New Orleans Marriott) - 11:00 AM-12:00 PM

Presidings: Nathan S. Little Jeff Gore

#### COTTON INSECT RESEARCH & CONTROL - WEDNESDAY EARLY AF-TENOON - MS STUDENT PAPER COMPETITION

Preservation Hall Studios 7 - 8 (New Orleans Marriott) - 1:30 PM-3:15 PM

Presiding: Sebe Brown

### 1:30 PM Linking Cotton Fleahopper Spring Emergence to Local Environmental Factors

Kristin Lea Hamons<sup>1</sup>, Gregory A. Sword<sup>2</sup>, Charles P.-C. Suh<sup>3</sup> and Thomas M. Chappell<sup>1</sup>, (1)Texas A&M University, College Station, TX, (2)Texas A&M University, Dept. of Entomology, College Station, TX, (3)USDA-ARS ICCDRU, College Station, TX

### 1:45 PM Potential Insect Deterrence on Tri-Species Cotton Hybrids

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

#### 2:00 PM Brown Stink Bug, *Euschistus servus*, Management Thresholds for Seedling and Grain Developing Maize in Southeastern Virginia Tim Bryant<sup>1</sup>, Sally Taylor<sup>1</sup> and Roger Schurch<sup>2</sup>, (1)Virginia Tech, Suffolk, VA, (2)Virginia Tech, Blacksburg, VA

### 2:15 PM Effects of Bt Expression on Bollworm Distribution in the Cotton Canopy

**Dawson Kerns** and Scott D. Stewart, The University of Tennessee, Jackson, TN

### 2:30 PM Refinement and Validation of Soybean Looper Threshold in Mississippi Soybeans

Mary K. Huff<sup>1</sup>, Don Cook<sup>1</sup>, Jeff Gore<sup>1</sup>, Angus Catchot<sup>2</sup>, Fred Musser<sup>2</sup> and Trent Irby<sup>2</sup>, (1)Mississippi State University, Stoneville, MS, (2)Mississippi State University, Mississippi State, MS

### 2:45 PM Bollworm Damage and Behavior in Bt Cotton

**Russ Godbold**<sup>1</sup>, Jeff Gore<sup>2</sup>, Fred Musser<sup>3</sup>, Don Cook<sup>2</sup> and Angus Catchot<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

### 3:00 PM Susceptibility of Fall Armyworm Genotypes Carrying Vip3A Resistant Alleles, to Bt Plants and Purified Bt Proteins

**Tyler Gilreath**<sup>1</sup>, David Kerns<sup>1</sup>, Fei Yang<sup>1</sup> and Shannon Morsello<sup>2</sup>, (1)Texas A&M University, College Station, TX, (2)North Carolina State University, Raleigh, NC

#### COTTON INSECT RESEARCH & CONTROL - WEDNESDAY EARLY AFTER-NOON - PHD STUDENT PAPER COMPETITION

### Galerie 3 (New Orleans Marriott) - 1:30 PM-3:15 PM

Presiding: Benjamin C Thrash

### 1:30 PM Relating Rice Stink Bug, Oebalus Pugnax, Sampling to Direct and Indirect Yield Loss in Rice

Aaron Cato<sup>1</sup>, **Gus Lorenz**<sup>2</sup>, Nick R. Bateman<sup>3</sup>, Jarrod Hardke<sup>4</sup>, Benjamin C Thrash<sup>5</sup>, Tara Clayton<sup>4</sup>, Nichole Taillon<sup>6</sup>, Andrew Plummer<sup>6</sup>, Kevin McPherson<sup>5</sup> and Layton D McCullars<sup>1</sup>, (1)University of Arkansas, Fayetteville, 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, Lonoke, AR, (6)University of Arkansas CES, Lonoke, AR

#### **1:45 PM** Landscape and Climatic Factors Affecting Tarnished Plant Bug (Lygus lineolaris) Infestations in Mid-Atlantic Cotton Systems Seth Dorman<sup>1</sup>, Sally Taylor<sup>1</sup> and Roger Schuerch<sup>2</sup>, (1)Virginia Tech, Suffolk, VA, (2)Virginia Polytechnic Institute and State University, Blacksburg, VA

### 2:00 PM Interplay between Cotton, Native Bees, and the Surrounding Landscape: Reciprocal Benefits to Cotton and Bee Pollinators

**Isaac L. Esquivel**<sup>1</sup>, Karen W. Wright<sup>2</sup>, Michael J. Brewer<sup>1</sup> and Robert Coulson<sup>3</sup>, (1)Texas A&M AgriLife Research, Department of Entomology, Corpus Christi, TX, (2)Texas A&M University Insect Collection, College Station, TX, (3) Texas A&M University, College Station, TX

### 2:15 PM Rearing Climate Can Alter Predator Foraging Rates in Novel Environments

**Cori Speights**<sup>1</sup>, Angus Catchot<sup>2</sup> and Brandon Barton<sup>2</sup>, (1)Mississippi State University, Department of Biochemistry, Molecular Biology, Entomology, and Plant Pathology, Starkville, MS, (2)Mississippi State University, Mississippi State, MS

### 2:30 PM Identification of Resistance Alleles to Bt Proteins in Helicoverpa Zea

**Jose C. Santiago Gonzalez**, Texas A&M University-Entomology. Dr. David Kerns Entomology Research Program, College Station, TX

### 2:45 PM Landscape Level Contributions of Helicoverpa Zea in Mississippi Corn

Tyler B Towles<sup>1</sup>, Angus Catchot<sup>2</sup>, Jeff Gore<sup>3</sup>, Don Cook<sup>3</sup>, Mike Caprio<sup>1</sup> and Chris Daves<sup>4</sup>, (1)Mississippi State University, Starkville, MS, (2)Mississippi State University, Mississippi State, MS, (3)Mississippi State University, Stoneville, MS, (4)Monsanto, Coila, MS

### 3:00 PM Fungal Endophyte Seed Treatments Enhance Defensive Volatile Emissions and Alter Stink Bug Olfactory Preference

**Cody Gale**, Texas A&M University, College Station, TX, Charles P.-C. Suh, US-DA-ARS ICCDRU, College Station, TX, Michael V Kolomiets, Texas A&M Plant Pathology Department, College Station, TX and Gregory A. Sword, Texas A&M University, Dept. of Entomology, College Station, TX

### **COTTON INSECT RESEARCH & CONTROL - WEDNESDAY**

### LATE AFTERNOON - MS STUDENT PAPER COMPETITION (CONTINUED)

### Preservation Hall Studios 7 - 8 (New Orleans Marriott) - 4:00 PM-5:30 PM

### Presiding: Kerry Clint Allen

### 4:00 PM The Impact of Brown Stink Bug, Euschistus Servus, Damage on Early 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 The Impact of Fall Armyworm, Spodoptera Frugiperda, on Growth and Yield of Rice

Layton D McCullars<sup>1</sup>, Gus Lorenz<sup>2</sup>, Nick R. Bateman<sup>3</sup>, Jarrod Hardke<sup>4</sup>, Aaron Cato<sup>1</sup>, Benjamin C Thrash<sup>5</sup>, Nichole Taillon<sup>6</sup>, Kevin McPherson<sup>5</sup>, Tara Clayton<sup>4</sup>, Andrew Plummer<sup>6</sup> and Garrett Felts<sup>7</sup>, (1)University of Arkansas, Fayetteville, 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, Lonoke, AR, (6)University of Arkansas CES, Lonoke, AR, (7)University of Arkansas - RREC, Stuttgart, AR

### 4:30 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> and Don Cook<sup>2</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

### 4:45 PM Dancing Bees Communicate Foraging Preferences in Row Crop Production Systems

**Mary Silliman**<sup>1</sup>, Sally Taylor<sup>2</sup>, Roger Schuerch<sup>1</sup> and Margaret Couvillon<sup>1</sup>, (1) Virginia Polytechnic Institute and State University, Blacksburg, VA, (2)Virginia Tech, Suffolk, VA

### 5:00 PM Defining Bee Pollinator Community Composition Found in Tennessee Soybean

Andrew L Lawson, University of Tennessee, Knoxville, TN, Scott D. Stewart, The University of Tennessee, Jackson, TN and Katherine A. Parys, USDA-ARS SIMRU, Stoneville, MS

### 5:15 PM Impact of Novaluron on Ovarian Development and Maturation in the Tarnished Plant Bug

**Beverly D. Catchot**<sup>1</sup>, Fred Musser<sup>1</sup>, Jeff Gore<sup>2</sup>, Ryan Jackson<sup>3</sup> and Natraj Krishnan<sup>1</sup>, (1)Mississippi State University, Mississippi State, MS, (2)Mississippi State University, Stoneville, MS, (3)Syngenta, Greensboro, NC

### COTTON INSECT RESEARCH & CONTROL - WEDNESDAY LATE AFTER-NOON - PHD STUDENT PAPER COMPETITION (CONTINUED)

### Galerie 3 (New Orleans Marriott) - 4:00 PM-5:30 PM

Presiding: Fred Musser

**4:00 PM Evaluating Thresholds for Caterpillar Pests of Peanut Brittany E. Lipsey**<sup>1</sup>, Jeff Gore<sup>2</sup>, Angus Catchot<sup>1</sup>, Don Cook<sup>2</sup>, Jason Sarver<sup>1</sup> and Jason A. Bond<sup>3</sup>, (1)Mississippi State University, Mississippi State, MS, (2) Mississippi State University, Stoneville, MS, (3)Mississippi State, Stoneville, MS

#### 4:15 PM Photoperiod-Specific within-Cotton Distribution of the Green Stink Bug (*Hemiptera: Pentatomidae*): Implications for Detection and Sampling

James P. Glover<sup>1</sup>, Michael J. Brewer<sup>1</sup>, Gregory A. Sword<sup>2</sup> and Micky D. Eubanks<sup>2</sup>, (1)Texas A&M AgriLife Research, Department of Entomology, Corpus Christi, TX, (2)Texas A&M University, Dept. of Entomology, College Station, TX

**4:30 PM** Arizona Pink Bollworm Eradication Program 2018 Update Leighton R. Liesner, Donna Fairchild and Joahna Brengle, Arizona Cotton Research and Protection Council, Phoenix, AZ

**4:45 PM** Boll Injury Caused by Leaffooted Bug in Late-Season Cotton Michael J. Brewer and James P. Glover, Texas A&M AgriLife Research, Department of Entomology, Corpus Christi, TX

5:00 PM Pest Management Considerations in Midsouth Cotton Production Systems That Incorporate Soil & Water Conservation Practices Tina Gray Teague, Arkansas State University / University of Arkansas Experiment Station, State University, AR

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

### Galerie 3 (New Orleans Marriott) - 5:45 PM-7:00 PM

Presidings: Jeff Gore Nathan S. Little

### Thursday, January 10, 2019

### COTTON INSECT RESEARCH & CONTROL - THURSDAY EARLY MORN-ING - SESSION A

### Galerie 3 (New Orleans Marriott) - 8:00 AM-10:30 AM

Presiding: Cori Speights

### 8:00 AM Temporal Distribution and Abundance of Whiteflies in Georgia

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

### 8:15 AM Early-Season Insect Management in Dryland Cotton in the Texas High Plains

**Abdul Hakeem**<sup>1</sup>, Megha N. Parajulee<sup>2</sup>, Katie L. Lewis<sup>2</sup> and Suhas Vyavhare<sup>3</sup>, (1)Texas A&M AgriLife Research, Department of Entomology, Lubbock, TX, (2)Texas A&M AgriLife Research and Extension Center, Lubbock, TX, (3)Texas A&M AgriLife Extension Service, Lubbock, TX

### 8:30 AM Influence of Nozzle Type on Thrips Control with Selected Insecticides

Phillip M. Roberts, Trey Portier, Mark Abney and Michael D. Toews, University of Georgia, Tifton, GA

### 8:45 AM Controlling Thrips 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> and Aaron Cato<sup>5</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) University of Arkansas, Fayetteville, AR

### 9:00 AM Thrips Management 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> and Nick R. Bateman<sup>8</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

### 9:15 AM Global Overview of Isoclast Performance in Cotton

Jesse Richardson, Corteva Agriscience, Indianapolis, IN, Robert Annetts, Corteva Agriscience, Frenchs Forest, NSW, Australia, Aris Chloridis, Corteva Agriscience, Thessaloniki, Greece, Ramesh Kaliaperumal, Corteva Agriscience, Coimbatore -Tamali Nadu, India, Carlos Vassallo, Corteva Agriscience, Buenos Aires, Argentina, Larry C Walton, Corteva Agriscience, Tupelo, MS and Shine Taylor, Corteva Agriscience, Bradenton, FL

### 9:30 AM Changes in Plant Bug Insecticide Efficacy over 14 Years in Arkansas

**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 Aaron Cato<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, Fayetteville, AR

### 9:45 AM Evaluation of Insecticide Application Intervals to Optimize Tarnished Plant Bug Control

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

10:00 AM Biology, Ecology, and Management of the Cotton Aphid in the Southeastern U.S. and Status as a Vector of Cotton Blue Disease Alana Lynn Jacobson, Auburn University, Auburn, AL

#### 10:15 AM Remote Sensing of Woolly Croton Using Manned and Unmanned Aerial Imaging Systems

**Chenghai Yang**<sup>1</sup>, Charles P.-C. Suh<sup>2</sup>, Ritchie S. Eyster<sup>2</sup> and Kristin Lea Hamons<sup>3</sup>, (1)USDA-ARS, College Station, TX, (2)USDA-ARS ICCDRU, College Station, TX, (3)Texas A&M University, College Station, TX

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

#### Preservation Hall Studios 7 - 8 (New Orleans Marriott) - 8:00 AM-10:30 AM

Presiding: Brittany E. Lipsey

#### 8:00 AM Survival of *Pectinophora Gossypiella* (Saunders) on Transgenic Cotton Crop in Pakistan. Is It Resistance Development, Impact of High Temperature or Mixture of Non Bt. Cotton?

**Shafqat Saeed**, Rao Shamraiz, Muhammad Nasir and Muhammad Ishtiaq, MNS University of Agriculture, Multan, Pakistan

#### 8:15 AM Efficacy of Selected Insecticides for Control of Helicoverpa Zea in Non-Bt Cotton

Andrew Plummer<sup>1</sup>, Gus Lorenz<sup>2</sup>, Benjamin C Thrash<sup>3</sup>, Nichole Taillon<sup>1</sup>, Nick R. Bateman<sup>4</sup>, Kevin McPherson<sup>3</sup> and Aaron Cato<sup>5</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)University of Arkansas, Fayetteville, AR

### 8:30 AM Response of Helicoverpa Zea to Diet-Overlay Bt Toxins and Cotton Bt Traits Field Performance in Texas and the Mid-South

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

#### 8:45 AM Performance of Field Populations of Helicoverpa Zea Against Pyramided Bt Corn and Purified Vip3Aa1 Protein

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

#### 9:00 AM Cotton Bollworm Control with Bt Cotton

Stephen Biles, Texas A&M Agrilife Extension Service, Port Lavaca, TX, Kate Harrell, Texas A&M AgriLife Extension Service, Wharton, TX, David Kerns, Texas A&M University, College Station, TX, David R. Drake, Texas A&M AgriLife Extension Service, Commerce, TX, D. Tyler Mays, Texas A&M AgriLife Extension Service, Brownfield, TX and Jane Pierce, New Mexico State University, Las Cruces, NM

#### 9:15 AM Efficacy and Field Performance of Bt Cotton in Louisiana

Sebe Brown<sup>1</sup>, Wade Walker<sup>1</sup>, Cory Lee Cole<sup>2</sup> and David Kerns<sup>3</sup>, (1)LSU AgCenter, Winnsboro, LA, (2)LSU AgCenter, Kenner, LA, (3)Texas A&M University, College Station, TX

### 9:30 AM Caterpillar Microbiome in Conventional Versus Widestrike Cotton

**R. Michael Roe**<sup>1</sup>, Jean Marcel Deguenon<sup>1</sup>, Nicholas V. Travanty<sup>1</sup>, Anirudh Dhammi<sup>1</sup>, Loganathan Ponnusamy<sup>1</sup>, Dan Mott<sup>1</sup>, Dominic Reisig<sup>2</sup> and Ryan W Kurtz<sup>3</sup>, (1)North Carolina State University, Raleigh, NC, (2)North Carolina State University, Plymouth, NC, (3)Cotton Incorporated, Cary, NC

### 9:45 AM The Moving Target of Managing Bt Resistant Bollworm in Cotton

**Dominic Reisig**, North Carolina State University, Plymouth, NC, Jeremy K. Greene, Clemson University, Blackville, SC and Phillip M. Roberts, University of Georgia, Tifton, GA

10:00 AM Laboratory Susceptibilities of Bollworm and Tobacco Budworm Populations from the Mississippi Delta to Diamide Insecticides Kerry Clint Allen and Nathan S. Little, USDA-ARS SIMRU, Stoneville, MS

#### 10:15 AM Insecticide Resistance Monitoring Update: Bollworms, Loopers, and Tarnished Plant Bugs

**Fred Musser** and Beverly D. Catchot, Mississippi State University, Mississippi State, MS

### Cotton Quality Measurements Conference

#### Wednesday, January 9, 2019

#### COTTON QUALITY MEASUREMENTS - WEDNESDAY LATE AFTERNOON

#### Galerie 4 (New Orleans Marriott) - 3:30 PM-5:45 PM

#### 3:30 PM HVI Elongation: Laying the Foundations for a New Fiber Quality Measurement

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

#### 3:45 PM HVI Elongation Round Trial Results

**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 Southern Regional Research Center, New Orleans, LA, (2) Texas Tech University, Lubbock, TX, (3)Cotton Incorporated, Cary, NC

#### 4:00 PM Analysis of Results from the National Cotton Variety Testing Program

**Devron P. Thibodeaux**<sup>1</sup>, Christopher D. Delhom<sup>2</sup> and Michael K. Dowd<sup>2</sup>, (1) Fiber Physics,LLC, Pickens, SC, (2)USDA-ARS Southern Regional Research Center, New Orleans, LA

### 4:15 PM Validation of Dual-Beard Fibrography for Cotton Length Distribution Measurement

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

### 4:30 PM Calibration of the High Volume Instrument with the Whole Fibrogram

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

#### 4:45 PM Preliminary Results of How Conventional and Experimental Lint Cleaning Processes Affect 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>, Gregory A. Holt<sup>4</sup>, Ruixiu Sui<sup>5</sup>, Vikki B. Martin<sup>6</sup> and Neha Kothari<sup>6</sup>, (1)USDA-ARS Southwestern Cotton Ginning Research Laboratory, Mesilla Park, NM, (2)USDA-ARS Southern Regional Research Center, New Orleans, LA, (3)USDA-ARS Cotton Production and Processing Research Unit, Lubbock, TX, (4)USDA ARS, Lubbock, TX, (5)USDA-ARS, Stoneville, MS, (6)Cotton Incorporated, Cary, NC

#### 5:00 PM Differentiation of Immature Fiber Mutant and Texas Marker-1 Cotton Fibers by the Use of ATR FT-IR Spectroscopy

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

#### 5:15 PM Calculating Infrared Maturity Indexes for Cotton Using a Focal Plane Array Detector

Michael Santiago Cintron, USDA, New Orleans, LA and Terri Von Hoven, USDA-ARS-SRRC, New Orleans, LA

5:30 PM Relationships between Upland Cotton HVI and AFIS Measurements Versus Fiber Surface Amino Acid Content and +b Values Donna V. Peralta, ARS-USDA, New Orleans, LA

# **Cotton Utilization Conference**

#### Wednesday, January 9, 2019

#### COTTON UTILIZATION

#### Galerie 4 (New Orleans Marriott) - 10:30 AM-12:00 PM

#### Official: Mourad Krifa

#### 10:30 AM Cotton-Containing Nonwoven Wipes for Use in Specialty Applications and Enhanced Cleaning Efficiency

**Rebecca Hron**<sup>1</sup>, Doug Hinchliffe<sup>1</sup>, Brian D Condon<sup>1</sup>, Chris Mattison<sup>1</sup>, Michael Santiago Cintron<sup>2</sup>, Terri Von Hoven<sup>1</sup>, Crista Madison<sup>3</sup> and Michael Reynolds<sup>1</sup>, (1)USDA-ARS-SRRC, New Orleans, LA, (2)USDA, New Orleans, LA, (3)Cotton Chemistry and Utilization Research Unit, USDA ARS, New Orleans, LA

#### 10:45 AM Developing Nonwoven Cotton Materials As Prolonged Battlefield Care Dressings

J. Vincent Edwards, Graves Elena and Nicolette Prevost, SRRC, New Orleans, LA

#### 11:00 AM Characterization of Defatted Cottonseed Meal-Based Biochar and Bio-Oil

Zhongqi He, USDA-ARS-SRRC, New Orleans, LA and Mingxin Guo, Dept. of Agriculture & Natural Resources, Dover, DE

#### 11:15 AM Bioactive Compounds from Glanded and Glandless Cottonseeds

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

### 11:30 AM Surface-Enhanced Raman Spectroscopy for Quantifying Silver Nanoparticles in Cotton Textiles

Matthew B Hillyer<sup>1</sup>, Sunghyun Nam<sup>1</sup>, Brian D Condon<sup>1</sup>, Huiyuan Guo<sup>2</sup>, Lili He<sup>2</sup> and Michael Reynolds<sup>1</sup>, (1)USDA-ARS-SRRC, New Orleans, LA, (2)University of Massachusetts Amherst, Amherst, MA

#### PERSPECTIVES ON COTTON COMPETITIVENESS

#### Galerie 4 (New Orleans Marriott) - 1:30 PM-3:00 PM

Officials: Mourad Krifa Christopher D. Delhom

#### 1:30 PM Introductory Remarks

### 1:40 PM From the Laundry to the Ocean: A Study on Fabric Shedding and Fiber Degradation

Marielis Zambrano<sup>1</sup>, Richard Venditti<sup>1</sup>, Joel Pawlak<sup>1</sup>, **Mary Ankeny**<sup>2</sup>, Jesse Daystar<sup>2</sup> and Jay Cheng<sup>1</sup>, (1)North Carolina State University, Raleigh, NC, (2) Cotton Incorporated, Cary, NC

#### 2:10 PM Cotton Utilization in Nano-Enhanced Textiles Mourad Krifa, Kent State University, Kent, OH

#### 2:30 PM Durability of Silver Nanoparticles Dispersed into Cotton Fiber during Consecutive Laundering

Sunghyun Nam, Matthew B Hillyer, Brian D Condon and Michael Reynolds, USDA-ARS-SRRC, New Orleans, LA

# Cotton Weed Science Research Conference

#### Wednesday, January 9, 2019

#### COTTON WEED SCIENCE RESEARCH - WEDNESDAY EARLY MORNING

Mardi Gras Ballroom Salons A - C (New Orleans Marriott) - 8:25 AM-10:00 AM

#### 8:25 AM Welcoming Remarks

#### 8:30 AM Tolerance of XtendFlex and Enlist Cotton Varieties to Intermoc

Hannah Wright<sup>1</sup>, Jason Norsworthy<sup>1</sup>, Jacob T. Richburg<sup>1</sup> and Tom Barber<sup>2</sup>, (1)University of Arkansas, Fayetteville, AR, (2)University of Arkansas-Extension, Lonoke, AR

### 8:45 AM Non-Dicamba Tolerant Cotton Response to Low Rates of Dicamba

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

#### 9:00 AM Weed Management in Conventional and Conservation Tillage Systems with Bollgard II Xtendflex Cotton

**C.D. Ray White**, Texas A&M AgriLife Research, Lubbock, TX, J. Wayne Keeling, Texas A&M AgriLife Research and Extension Center, Lubbock, TX and Peter A. Dotray, Texas Tech University, Texas A&M AgriLife Research and Extension Service, Lubbock, TX

#### 9:15 AM Evaluation of Brake in Combination with Cotoran or Reflex in Cotton

**Jacob T. Richburg**<sup>1</sup>, Jason K Norsworthy<sup>1</sup>, Mason Castner<sup>1</sup>, Zachary D. Lancaster<sup>1</sup> and Tom Barber<sup>2</sup>, (1)University of Arkansas, Fayetteville, AR, (2) University of Arkansas-Extension, Lonoke, AR

#### 9:30 AM Does See and Spray Technology Reduce Off-Target Movement of Dicamba?

Zachary D. Lancaster<sup>1</sup>, Jason K Norsworthy<sup>1</sup>, Jacob T. Richburg<sup>1</sup>, Michael Houston<sup>1</sup> and Tom Barber<sup>2</sup>, (1)University of Arkansas, Fayetteville, AR, (2) University of Arkansas-Extension, Lonoke, AR

#### 9:45 AM Cotton Weed Control Is Impacted By Interval between Sequential Glufosinate Applications

Taylor M Randell, Lavesta C Hand, Jenna C Vance and A. Stanley Culpepper, University of Georgia, Tifton, GA

#### COTTON WEED SCIENCE RESEARCH - WEDNESDAY LATE MORNING

Mardi Gras Ballroom Salons A - C (New Orleans Marriott) - 10:30 AM-12:00 PM

#### 10:30 AM Is Volatility of Enlist One a Likely Cause of Injury to Non-Enlist Cotton?

**Lawson Priess**<sup>1</sup>, Jason Norsworthy<sup>1</sup>, Tom Barber<sup>2</sup>, Zachary D. Lancaster<sup>1</sup> and Thomas C Mueller<sup>3</sup>, (1)University of Arkansas, Fayetteville, AR, (2)University of Arkansas-Extension, Lonoke, AR, (3)University of Tennessee, Knoxville, TN, TN

#### 10:45 AM Comparison of Early-Season Weed Control Programs in Xtendflex Cotton

**Jake A Patterson**<sup>1</sup>, Jason Norsworthy<sup>1</sup>, Zachary D. Lancaster<sup>1</sup>, Jacob T. Richburg<sup>1</sup> and Tom Barber<sup>2</sup>, (1)University of Arkansas, Fayetteville, AR, (2) University of Arkansas-Extension, Lonoke, AR

### 11:00 AM Droplet Size Impact on Acifluorfen and Lactofen Efficacy for Palmer Amaranth (*Amaranthus palmeri*) Control

**Lucas Xavier Franca**<sup>1</sup>, Darrin M. Dodds<sup>1</sup>, Greg Kruger<sup>2</sup>, Thomas Butts<sup>3</sup>, Jacob P. McNeal<sup>1</sup>, Savana Davis<sup>1</sup>, Bradley Norris<sup>1</sup> and John J Williams<sup>1</sup>, (1)Mississippi State University, Mississippi State, MS, (2)University of Nebraska, North Platte, NE, (3)University of Nebraska-Lincoln, North Platte, NE

#### 11:15 AM Options for Controlling PPO-Resistant Palmer Amaranth Preemergence in Cotton

Wyatt Coffman<sup>1</sup>, Tom Barber<sup>2</sup>, Jason Norsworthy<sup>1</sup>, Lawson Priess<sup>1</sup> and Hannah Wright<sup>1</sup>, (1)University of Arkansas, Fayetteville, AR, (2)University of Arkansas-Extension, Lonoke, AR

#### 11:30 AM Efficacy of Brake Applied Alone and in Combination with Other Residual Herbicides in Cotton

**Mason Castner**<sup>1</sup>, Jason K Norsworthy<sup>1</sup>, Zachary D. Lancaster<sup>1</sup>, Jacob T. Richburg<sup>1</sup> and Tom Barber<sup>2</sup>, (1)University of Arkansas, Fayetteville, AR, (2) University of Arkansas-Extension, Lonoke, AR

#### COTTON WEED SCIENCE RESEARCH - WEDNESDAY EARLY AFTER-NOON

#### Mardi Gras Ballroom Salons A - C (New Orleans Marriott) - 1:00 PM-2:30 PM

Official: Seth A. Byrd

#### 1:00 PM Response of Cotton to Low Rates of Engenia at Different Growth Stages

John W Seale, Taghi Bararpour, Ralph R. Hale, Jeff Gore and Don Cook, Mississippi State University, Stoneville, MS

#### 1:15 PM Cotton Tolerance to Metribuzin

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

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

**Connor Ferguson**<sup>1</sup>, Pedro Urach Ferreira<sup>1</sup>, Michael Wesley<sup>1</sup>, Luke Merritt<sup>1</sup>, Zach Treadway<sup>1</sup>, Kayla Broster<sup>1</sup> and Nick Fleitz<sup>2</sup>, (1)Mississippi State University, Mississippi State, MS, (2)Pentair-Hypro, New Brighton, MN

#### 1:45 PM Reducing Spray Drift and Increasing Spray Days with Redball-Hooded Sprayers - a Drift Comparison of a Redball-Hooded Boom Versus an Open Boom, and an Overview of Available Legal Spray Days in 2018

Steve Claussen, Willmar Fabrication, LLC, Benson, MN

### 2:00 PM Plant-Back Interval for Elevore and Quelex Prior to Planting Cotton

**Charlie Cahoon**, North Carolina State University, Raleigh, NC, Alan York, NC State University, Raleigh, NC, Carter Askew, Virginia Tech, Painter, VA and Michael Flessner, Virginia Polytechnic Institute & State University, Blacksburg, VA

#### 2:15 PM Optimizing Chloroacetamide Placement in Dicamba-Resistant Cotton Production Systems

John T. Buol<sup>1</sup>, Lucas Xavier Franca<sup>1</sup>, Daniel B. Reynolds<sup>1</sup>, Darrin M. Dodds<sup>1</sup> and J. Anthony Mills<sup>2</sup>, (1)Mississippi State University, Mississippi State, MS, (2)Bayer U.S., Collierville, TN

#### Thursday, January 10, 2019

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

#### Mardi Gras Ballroom Salons A - C (New Orleans Marriott) - 9:30 AM-10:00 AM

## Technical Conferences Poster Board Session

Wednesday, January 9, 2019, 8:00 AM - 10:00 PM Thursday, January 10, 2019, 8:00 AM - 12:00 PM

#### Mardi Gras Ballroom Salons E - H

POSTERS WILL BE ON DISPLAY IN MARDI GRAS BALLROOM SALONS E-H FOR THE FOLLOWING:

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

#### 1. Varietal Mixture in Cotton with Emphasis on Yield and Economic Stability

Blake L. Szilvay<sup>1</sup>, Keith L. Edmisten<sup>1</sup>, Guy D. Collins<sup>2</sup>, Jared R. Whitaker<sup>3</sup> and Randy Wells<sup>1</sup>, (1)North Carolina State University, Raleigh, NC, (2)North Carolina State University, Rocky Mount, NC, (3) University of Georgia, Tifton, GA

2. 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

3. Effect of Various Cover Crop Species on Water Infiltration and Bulk Density

Savana Davis, Darrin M. Dodds, Lucas Xavier Franca, Bradley R. Wilson, Jacob P. McNeal, Bradley Norris and John J Williams, Mississippi State University, Mississippi State, MS

4. Days and DD60s to Key Growth Stages in Modern Cultivars of Varying Maturities

Cheyenne Williams, Tyson B Raper and Shawn Butler, University of Tennessee, Jackson, TN

 Evaluation of Planter Attachments to Maximize the Likelihood of Establishing Profitable Cotton Stands in High Biomass Cover Crops

Freeman Brown, Tyson B Raper and Shawn Butler, University of Tennessee, Jackson, TN

 Managing Small Grain Cover Crops 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

#### 7. Efficacy of Recovery Sprays to Auxin Injury

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 - Southwest Research and Extension Center, Stillwater, OK and Glen Ritchie, Texas Tech University, Lubbock, TX

- Evaluating Winter Cover Crops on Cotton Performance Dorothy Menefee and Nithya Rajan, Texas A&M University, College Station, TX
- Rapid a-Ci Response (RACiR) of Two Gossypium Species Under Drought Conditions
   Bhupinder Singh<sup>1</sup>, Daryl Chastain<sup>1</sup> and John L. Snider<sup>2</sup>, (1)Mississippi State University, Stoneville, MS, (2)University of Georgia, Tifton, GA

10. Effect of Nitrogen Fertilizer Rates on Cotton (Gossypium hirsutum) Variety Performance

John J Williams<sup>1</sup>, Darrin M. Dodds<sup>1</sup>, Sterling Brooks Blanche<sup>2</sup>, Lucas Xavier Franca<sup>1</sup>, Jacob P. McNeal<sup>1</sup>, Savana Davis<sup>1</sup> and Bradley Norris<sup>1</sup>, (1) Mississippi State University, Mississippi State, MS, (2) Phytogen Cottonseed, Saint Joseph, LA

#### 11. Comparison of Soil and Foliar Applied Potassium Fertilizer in Cotton

Ciera Ware, Texas A&M Research, Lubbock, TX, Katie L. Lewis, Texas A&M AgriLife Research and Extension Center, Lubbock, TX, Amee Bumguardner, Texas Tech University, Lubbock, TX, Dustin Kelley, Texas A&M AgriLife Research, Lubbock, TX and Tommy Roach, Nachurs Alpine Solutions, Marion, OH

Cotton and Sorghum Intercropping 12. Kirby Luth and Glen Ritchie, Texas Tech University, Lubbock, TX

Impact of Variety Selection and PGR Strategy on Cotton 13. Performance in the Texas High Plains

Robert Wright<sup>1</sup>, Seth A. Byrd<sup>2</sup>, Amee Bumguardner<sup>1</sup> and John D. Wanjura<sup>3</sup>, (1)Texas Tech University, Lubbock, TX, (2)Oklahoma State University - Southwest Research and Extension Center, Stillwater, OK, (3)USDA-ARS Cotton Production and Processing Research Unit, Lubbock, TX

14. Chlorophyll Fluorescence Parameters as Rapid Indicators of **Cotton Seedling Vigor Under Contrasting Growth Temperature** Regimes

John L. Snider<sup>1</sup>, Nuengsap Thangthong<sup>1</sup>, Cristiane Pilon<sup>1</sup>, Gurpreet Virk<sup>1</sup> and Viktor Tishchenko<sup>2</sup>, (1)University of Georgia, Tifton, GA, (2) University of Georgia, Griffin, GA

#### Influence of Bollworm Management on Variety Selection in NC 15. Guy D. Collins<sup>1</sup>, Dominic Reisig<sup>2</sup>, Anders S. Huseth<sup>3</sup>, Keith L.

Edmisten<sup>3</sup> and Blake L. Szilvay<sup>3</sup>, (1)NC State University, Rocky Mount, NC, (2)North Carolina State University, Plymouth, NC, (3)North Carolina State University, Raleigh, NC

- Screening and Verification of Cotton (Gossypium hirsutum L.) 16. Cultivars for Low-Phosphorus and the Critical Phosphorus Rate Zhiguo Zhou and Huijie Li, Nanjing Agricultural University, Nanjing, China
- 17. Using NDVI for Variable Rate Irrigation Prescriptions Philip J. Bauer and Kenneth C. Stone, USDA-ARS, Florence, SC

#### Premier Cotton Education -- Varieties and Pre-Plant 18 Considerations

Danny J Nusser, Texas A&M AgriLife Extension, Amarillo, TX

- 19. Evaluation of Nemastrike for Control of Nematodes in NC Cotton Craig Ellison, NC State University, Jackson, NC, Guy D. Collins, NC State University, Rocky Mount, NC, Lindsey D. Thiessen, NC State University, Raleigh, NC and Keith L. Edmisten, North Carolina State University, Raleigh, NC
- **Evaluation of Fungicide Applications for Control of Target Spot** 20. in NC

Tim Britton, NC State University, Smithfield, NC, Guy D. Collins, NC State University, Rocky Mount, NC, Lindsey D. Thiessen, NC State University, Raleigh, NC and Keith L. Edmisten, North Carolina State University, Raleigh, NC

#### Comparison of the Water Use Dynamics of Cotton Grown with 21. Sorghum Under Deficit Irrigation

Irish Lorraine B Pabuayon, Sukhbir Singh and Glen Ritchie, Texas Tech University, Lubbock, TX

22. Evaluation of Root-Knot Nematode Resistant Cotton Varieties in East Georgia

Mark Freeman, UGA, Statesboro, GA, Peyton Sapp, University of Georgia Cooperative Extension, Waynesboro, GA and Katie Burch, UGA Extension Burke County, Waynesboro, GA

- 23. Changes in Boll Development, Yield, and Fiber Quality of Commercial Cotton Varieties over Time Based on Date of Release Michael A. Jones, Clemson University, Florence, SC and Randy Wells, North Carolina State University, Raleigh, NC
- 24. **Evaluation of a Next Generation Humic Acid Formulation** Benjamin Wiggins, Helena Agri Enterprises LLC, Memphis, TN
- Evaluating Seeding Rates of Cotton Planted in 30" Rows in Georgia Mark Freeman, UGA, Statesboro, GA and Brent Allen, University of Georgia, Sandersville, GA
- Evaluation of New Variety Response to PGR Management Mark Freeman, UGA, Statesboro, GA and Jared R. Whitaker, University of Georgia, Tifton, GA
- Cotton Harvest Timing Impacts on Yield and Quality Mark Freeman, UGA, Statesboro, GA and Jared R. Whitaker, University of Georgia, Tifton, GA
- 2018 Texas Upper Gulf Coast Replicated Agronomic Cotton Evaluation (RACE) - Trial Summary
   Dale A. Mott and Gaylon Morgan, Texas A&M AgriLife Extension Service, College Station, TX
- 29. Cover Crop Impacts on Soil Microbial Properties in Cotton Cropping Systems Partson Mubvumba, Paul DeLaune, Charles Coufal and Anthony Pennartz, Texas A&M AgriLife Research, Vernon, TX
- Re-Assessment of the Nutrient Accumulation and Requirements of Modern Cotton Cultivar in Southern High Plains 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. **Runoff Water Dynamics in Conservation Cotton Systems** Charles Coufal, Paul DeLaune, Partson Mubvumba and Anthony Pennartz, Texas A&M AgriLife Research, Vernon, TX
- 32. Cotton Cultivar Performance in Missouri for the 2018 Growing Season

Calvin D Meeks, University of Missouri, Portageville, MO

33. Evaluating Cotton Seedling Vigor in the Missouri Bootheel for 2018

Calvin D Meeks, University of Missouri, Portageville, MO

34. Evaluating Various Soil Moisture Sensor Thresholds in Cotton in South Carolina

Michael T. Plumblee, Gilbert A. Miller and Kendall R. Kirk, Clemson University, Blackville, SC

35. Replicated Agronomic Cotton Evaluation (RACE) Trial in the Rolling Plains of Texas-2018

Jonathan H. Ramirez<sup>1</sup>, T. Royer<sup>1</sup>, Emi Kimura<sup>1</sup>, Paul DeLaune<sup>2</sup> and Gaylon Morgan<sup>3</sup>, (1)Texas A&M AgriLife Research and Extension Service, Vernon, TX, (2)Texas A&M AgriLife Research, Vernon, TX, (3) Texas A&M AgriLife Extension Service, College Station, TX

36. Polyhalite for Cotton Production in Texas

Carson R Wade, Texas A&M University, College Station, TX, Gaylon Morgan, Texas A&M AgriLife Extension Service, College Station, TX and Julie A. Howe, Texas AgriLife Research, College Station, TX

- Factors Impacting the Success of Cotton Harvest Aids Seth A. Byrd<sup>1</sup>, Bradley R. Wilson<sup>1</sup> and Robert Wright<sup>2</sup>, (1)Oklahoma State University, Stillwater, OK, (2)Texas Tech University, Lubbock, TX
- Impact of Nitrogen Fertilizer and Irrigation on Cotton (Gossypium hirsutum) Defoliation
   Bradley Norris, Darrin M. Dodds, Lucas Xavier Franca, Jacob P. McNeal, Savana Davis and John J Williams, Mississippi State University, Mississippi State, MS
- Effects of Cover Crops on Corn and Cotton Yields in Tennessee Jake Mallard<sup>1</sup>, Matt Griggs<sup>2</sup>, Tyson B Raper<sup>1</sup> and Shawn Butler<sup>1</sup>, (1) University of Tennessee, Jackson, TN, (2)Griggs Farm, Humboldt, TN
- 40. Impact of Cover Crop Termination on Soil Health and Lint Yield of Cotton

Bill Robertson, Amanda Free, Cheyenne Manuel and Christian Smith, University of Arkansas, Newport, AR

 Evaluation of Cotton in Large-Plot on-Farm Variety Testing in Arkansas for 2018
 Bill Robertson<sup>1</sup>, Amanda Free<sup>1</sup>, Cheyenne Manuel<sup>1</sup> and Robert

Bill Robertson<sup>1</sup>, Amanda Free<sup>1</sup>, Cheyenne Manuel<sup>1</sup> and Robert L. Nichols<sup>2</sup>, (1)University of Arkansas, Newport, AR, (2)Cotton Incorporated, Cary, NC

42. Economics and Sustainability Overview of Arkansas Cotton Research and Sustainability Program

Amanda Free<sup>1</sup>, Bill Robertson<sup>1</sup>, Mike Daniels<sup>2</sup> and Breana Watkins<sup>2</sup>, (1)University of Arkansas, Newport, AR, (2)University of Arkansas, Little Rock, AR

43. Seeding Rate and Winter Cover Crop Effects on Maturity and Yield of Arkansas Cotton

Tina Gray Teague<sup>1</sup>, Kyle D Wilson<sup>2</sup>, Haylee H Campbell<sup>2</sup>, N. Ray Benson<sup>3</sup> and Bill Robertson<sup>4</sup>, (1)Ark State Univ / Univ Ark Exp Sta, State University, AR, (2)University of Arkansas Division of Agriculture, State University, AR, (3)University of Arkansas, Blytheville, AR, (4) University of Arkansas, Newport, AR

44. Can Urea and Potassium Fertilizer (23-0-30) Applied during Bloom Increase Yield and Quality of Cotton Grown on a Sharkey Clay Soil

Josh T Copes, Owen Clark, Melanie Netterville and Ana P Campos, LSU AgCenter, Saint Joseph, LA

- 45. Influence of Tillage Practices on Lint Yield, Water Quality of Surface Runoff and Soil N in Cotton Production R Woodruff<sup>1</sup>, M.a.a. Adviento-Borbe<sup>1</sup>, Michele L. Reba<sup>1</sup>, Joseph Massey<sup>1</sup> and Tina Gray Teague<sup>2</sup>, (1)USDA-ARS, Jonesboro, AR, (2)Ark State Univ / Univ Ark Exp Sta, State University, AR
- Irrigation Water Use Efficiency of Cotton Cultivars in Different Cropping Systems in the Texas High Plains Murilo Maeda, Texas A&M AgriLife Extension, Lubbock, TX
- 47. Cotton Yield and Fiber Quality in Relation to Leaf and Canopy Traits Under Different Irrigation Regimes in Southwest Texas Xuejun Dong<sup>1</sup>, Shane Sieckenius<sup>2</sup>, Ben Peng<sup>3</sup>, Gaylon Morgan<sup>4</sup> and Vijay Joshi<sup>2</sup>, (1)Texas A&M AgriLife Research, Uvalde, TX, (2) Texas A&M Agrilife Research, Uvalde, TX, (3)Yancheng Institute of Technology, Uvalde, TX, (4)Texas A&M AgriLife Extension Service, College Station, TX

#### **Cotton Disease Council Posters**

 Screening for Cotton Resistance to Corynespora Cassiicola Carly Moore, Jenny Koebernick, Kira L. Bowen and Austin Hagan, Auburn University, Auburn, AL

### 49. Areolate Mildew, Ramularia Gossypii, Observations in Alabama in 2018

Matthew Stinson, Austin Hagan, Kira L. Bowen and Jenny Koebernick, Auburn University, Auburn, AL

- 50. Cotton Disease Loss Estimate Committee Report, 2018 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. Hutmacher<sup>5</sup>, John Muller<sup>6</sup>, Ian Small<sup>7</sup>, Zane J. Grabau<sup>8</sup>, Robert C. Kemerait<sup>9</sup>, Paul Price<sup>10</sup>, Tom W. Allen<sup>11</sup>, Sam Atwell<sup>12</sup>, John Idowu<sup>13</sup>, Lindsey D. Thiessen<sup>14</sup>, Randy Bowman<sup>15</sup>, Heather Young<sup>16</sup>, Terry A. Wheeler<sup>17</sup> and Hillary L. Mehl<sup>18</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, Five Points, 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, Altus, OK, (16)University of Tennessee, Jackson, TN, (17)Texas A&M AgriLife Research, Lubbock, TX, (18) Virginia Tech Tidewater AREC, Suffolk, VA
- Variety Response to Inoculation with Xanthomonas Citri Pv. Malvacearum in Mississippi Thomas W. Allen, Mississippi State University, Delta Research and Extension Center, Stoneville, MS
- 52. **Premier Cotton Education Disease and Nematodes** Danny J Nusser, Texas A&M AgriLife Extension, Amarillo, TX
- Cotton Cultivar Disease Incidence, Severity, and Yields When Challenged with Verticillium Wilt in the Tennessee Valley Region, 2018

Kathy S. Lawrence<sup>1</sup>, Tyler Sandlin<sup>2</sup>, Tyson B Raper<sup>3</sup>, Heather Kelly<sup>3</sup> and Brad Meyer<sup>4</sup>, (1)Auburn University, Auburn, AL, (2)Auburn University, Belle Mina, AL, (3)University of Tennessee, Jackson, TN, (4)Agri-AFC, Decatur, AL

54. Fusarium Species and Fusarium Wilt Pathogens Associated with Roots of Cottons in Arizona

Jiahuai Hu and Yizhou Mao, University of Arizona, Tucson, AZ

- 55. Piramiding Resistance to Main Cotton Diseases in Brazil Nelson Dias Suassuna<sup>1</sup>, Carina Mariane L. Lopes<sup>2</sup>, Fabiano J. Perina<sup>1</sup>, Joao Luis da Silva Filho<sup>1</sup>, Camilo de Lelis Morello<sup>1</sup> and Regina M. D. G. Carneiro<sup>2</sup>, (1)Brazilian Agricultural Research Corporation - EMBRAPA, Santo Antonio de Goias - GO, Brazil, (2)Brazilian Agricultural Research Corporation - EMBRAPA, Brasilia - DF, Brazil
- Phytogen Variety and Seed Treatment Product Evaluations in Reniform Nematode Infested Silt Loam Soils in Mississippi Tessie H. Wilkerson, Mississippi State University, Stoneville, MS

#### 57. 2018 National Cottonseed Treatment Program Heather Kelly<sup>1</sup>, Rachel R. Guyer<sup>1</sup>, Shelly Neill Pate<sup>1</sup>, Thomas W. Allen<sup>2</sup>, M. B. Bayles<sup>3</sup>, P. D. Colyer<sup>4</sup>, Kathy S. Lawrence<sup>5</sup>, Hillary Mehl<sup>6</sup>, Paul Price<sup>7</sup>, Terry Spurlock<sup>8</sup> and Jason Woodward<sup>9</sup>, (1)University of Tennessee, Jackson, TN, (2)Mississippi State University, Stoneville, MS, (3)Oklahoma State University, Stillwater, OK, (4)LSU AgCenter, Bossier City, LA, (5)Auburn University, Auburn, AL, (6)Virginia Tech, Suffolk, VA, (7)Louisiana State University, Winnsboro, LA, (8) University of Arkansas, Monticello, AR, (9)Department of Plant and

Soil Science, Texas Tech University, Lubbock, TX

 Vertical Distribution and Population Dynamics of Nematodes as Influenced by Crop Rotation and Irrigation Lesley A Schumacher, University of Florida, Gainesville, FL 59. Evaluation of the Nematicide Velum Total's Impact on Various Cotton Cultivar Performances in Reniform Nematode Infested Environments

Taylor M. Wright, Texas Tech University, Department of Plant and Soil Science, Lubbock, TX, Jason Woodward, Department of Plant and Soil Science, Texas Tech University, Lubbock, TX, Katie L. Lewis, Texas A&M AgriLife Research and Extension Center, Lubbock, TX and Gaylon Morgan, Texas A&M AgriLife Extension Service, College Station, TX

- Distributions of Plant Parasitic Nematodes in Cotton Production Areas of Virginia
   Hillary L. Mehl, Saleh Ahmed and Linda Byrd-Masters, Virginia Tech Tidewater AREC, Suffolk, VA
- 61. Preliminary Screening of Cotton Germplasm for Resistance to Target Spot and Areolate Mildew Shreya Shanbhag and Peng Chee, University of Georgia, Tifton, GA
- 62. Efficacy of Biost Nematicide on Corn, Cotton, and Soybean Crops Grown in Reniform and Root Knot Fields Windi Sanchez, Bisho Ram Lawaju and Kathy S. Lawrence, Auburn University, Auburn, AL
- 63. Use of a Liquid Fertilizer (AgraLi) to Reduce Rotylenchulus Reniformis Population Density and Increase Cotton Yields David R Dyer and Kathy S. Lawrence, Auburn University, Auburn, AL

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

64. Evaluation of a Novel Thermal Imaging System for the Detection of Crop Water Status in Field-Grown Cotton John L. Snider<sup>1</sup>, Stefano Gobbo<sup>1</sup>, George Vellidis<sup>1</sup>, Yafit Cohen<sup>2</sup>, Vasileios Liakos<sup>1</sup> and Lorena Nunes Lacerda<sup>1</sup>, (1)University of Georgia, Tifton, GA, (2)Agricultural Research Organization (ARO), Bet-Dagan, Israel

#### **Cotton Improvement Conference Posters (General)**

- 65. Evaluation of Mechanical Cotton Seed Delinter for Breeders Joel Arce<sup>1</sup>, Jane Dever<sup>2</sup>, Terry A. Wheeler<sup>2</sup>, Gregory A. Holt<sup>3</sup> and Steve Hague<sup>1</sup>, (1)Texas A&M University, College Station, TX, (2)Texas A&M AgriLife Research, Lubbock, TX, (3)USDA ARS, Lubbock, TX
- The US National Cotton Germplasm Collection James Frelichowski, Janna Love and Lori Hinze, USDA-ARS, College Station, TX
- 67. Deltapine Class of 19 Varieties: Performance and Descriptions David W Albers, Bayer Crop Science, St. Louis, MO, Keylon Gholston, Bayer Crop Science, Baldwyn, MS, Darren Jones, Bayer Crop Science, Lubbock, TX and Dawn Fraser, Bayer Crop Science, Mount Olive, NC
- Localization of Vitamin E Constituents in Transgenic Cotton (Gossypium hirustum L.) Embryos
   Shanmukh S. Salimath<sup>1</sup>, Trevor Romsdahl<sup>1</sup>, Edgar B Cahoon<sup>2</sup> and Kent D. Chapman<sup>1</sup>, (1)University of North Texas, Denton, TX, (2) University of Nebraska, Lincoln, NE
- 69. Comparative Transcriptome Analysis of Near Isogenic Lines for Root-Knot Resistance QTLs, Qmi-C11 and Qmi-C14 Sameer Khanal<sup>1</sup>, Richard Davis<sup>2</sup> and Peng Chee<sup>1</sup>, (1)University of Georgia, Tifton, GA, (2)USDA-ARS, Tifton, GA
- 70. Trends in Phenotypic Diversity in Public Cotton Breeding Programs

Gerald Myers, LSU Agricultural Center, Baton Rouge, LA and Ted Wallace, Mississippi State University, Mississippi State, MS

#### Cotton Improvement Conference Posters (Student Competition)

- 71. Exploring Variation in AFIS Length Distribution of 8 F2 Populations Zach Hinds, Brendan Kelly and Eric F. Hequet, Texas Tech University, Lubbock, TX
- 72. Enhancing US Cotton Classing with Varietal Data Jacob W. James, Brendan Kelly and Eric F. Hequet, Texas Tech University, Lubbock, TX
- 73. Using the HVI Fibrogram to Explain Variation in Yarn Quality Md Abu Sayeed, Brendan Kelly and Eric F. Hequet, Texas Tech University, Lubbock, TX
- 74. Evaluation of Cotton Fibers Propensity to Break in F3 Breeding Lines

Joao Paulo Saraiva Morais<sup>1</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

- 75. Utilization of Novel Alleles Found in Obsolete Germplasm for the Improvement of Upland Cotton Alexandra P Ullrich, Texas A&M University Cotton Improvement Lab, Huntsville, TX
- 76. Recombination Rates in Interspecific and Intraspecific Cotton Mapping Populations

Luis M De Santiago, Interdisciplinary Program in Genetics, Texas A&M University, College Station, TX, Yu-Ming Lin, Texas A&M University, College Station, TX, Mauricio Ulloa, USDA-ARS, Lubbock, TX and David M. Stelly, Texas A&M University, College Station, TX

- 77. Genome-Wide Spaced Simplex SNP Assays for Marker-Based Interspecific Germplasm Introgression and Genetic Manipulation in Cotton Selfinaz Kubra Velioglu, Texas A&M University, College Station, TX
- Development and Characterization of Chromosome Segment Substitution Lines Christian Hitzelberger, Texas A&M University, College Station, TX
- 79. High-Throughput Phenotyping That Improves the Efficiency of a Cotton Plant Breeding System Wenzhuo Wu, Texas A&M University, College Station, TX
- 80. **Proof of Concept: Gene Based Breeding vs Field Based Breeding** Drutdaman Bhangu, Texas A&M University, College Station, TX
- Pathogenicity Test of Fusarium Wilt and Screening Germplasm Lines for Fusarium Wilt Resistance in Cotton Yi Zhu<sup>1</sup>, Abdelraheem Abdelraheem<sup>1</sup>, Soum Sanogo<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
- 82. A Genome-Wide Association Study of Resistance to Fusarium Wilt and Bacterial Blight in US Upland Cotton Germplasm Hanan Elassbli<sup>1</sup>, Abdelraheem Abdelraheem<sup>1</sup>, Vasu Kuraparthy<sup>2</sup>, David M. Stelly<sup>3</sup>, Lori Hinze<sup>4</sup>, Soum Sanogo<sup>1</sup>, Terry A. Wheeler<sup>5</sup>, Tom Wedegaertner<sup>6</sup> and Jinfa Zhang<sup>1</sup>, (1)New Mexico State University, Las Cruces, NM, (2)North Carolina State University, Raleigh, NC, (3) Texas A&M University, College Station, TX, (4)USDA-ARS, College Station, TX, (5)Texas A&M AgriLife Research, Lubbock, TX, (6)Cotton Incorporated, Cary, NC

#### Cotton Insect Research and Control Conference Posters

- 83. Evaluating Efficacy and Economic Profitability of Preventive **Insecticidal Seed Treatments in Cotton** Suhas Vyavhare<sup>1</sup>, Megha N. Parajulee<sup>2</sup>, David Kerns<sup>3</sup>, Blayne Reed<sup>4</sup>, John David Gonzales<sup>5</sup>, Michael J. Brewer<sup>6</sup>, Danielle Sekula<sup>7</sup>, Tyler Mays<sup>8</sup>, Tommy Doederlein<sup>9</sup>, Abdul Hakeem<sup>10</sup>, Jane Pierce<sup>11</sup> and Adam Kesheimer<sup>1</sup>, (1)Texas A&M AgriLife Extension Service, Lubbock, TX, (2)Texas A&M AgriLife Research and Extension Center, Lubbock, TX, (3)Texas A&M University, College Station, TX, (4)Texas A&M AgriLife Extension, Plainview, TX, (5)Texas A&M AgriLife Extension Service, Muleshoe, TX, (6)Texas A&M AgriLife Research, Department of Entomology, Corpus Christi, TX, (7)Texas A&M AgriLife Extension Service, Weslaco, TX, (8)Texas A&M AgriLife Extension, Lubbock, TX, (9)Texas A&M AgriLife Extension, Lamesa, TX, (10)Texas A&M AgriLife Research, Department of Entomology, Lubbock, TX, (11)New Mexico State University, Las Cruces, NM
- 84. Assessing the Impact of Wireworms on Stand Establishment and Yield in Cotton

D. Tyler Mays, Texas A&M AgriLife Extension Service, Brownfield, TX and Suhas Vyavhare, Texas A&M AgriLife Extension Service, Lubbock, TX

- Assessment of DNA Integrity from Trap-Captured Boll Weevils for Use in Pending Diagnostic Tool Lindsey C Perkin<sup>1</sup>, Charles P.-C. Suh<sup>1</sup> and Brenda S Oppert<sup>2</sup>, (1)USDA-ARS ICCDRU, College Station, TX, (2)USDA-ARS SPIERU, Manhattan, KS
- 86. Genetic Diversity and Genetic Structure in Bollworm Populations

Omaththage P. Perera, USDA-ARS SIMRU, Stoneville, MS

- 87. Comparison of Bt Technologies, with and without Diamide Applications, for Control of Helicoverpa Zea in Arkansas Cotton Kevin McPherson<sup>1</sup>, Gus Lorenz<sup>2</sup>, Benjamin C Thrash<sup>1</sup>, Nichole Taillon<sup>3</sup>, Nick R. Bateman<sup>4</sup>, Andrew Plummer<sup>3</sup> and Aaron Cato<sup>5</sup>, (1) University of Arkansas, Lonoke, AR, (2)The University of Arkansas, Lonoke, AR, (3)University of Arkansas CES, Lonoke, AR, (4)University of Arkansas - RREC, Stuttgart, AR, (5)University of Arkansas, Fayetteville, AR
- 88. Characterization of Cotton Crop Response to Western Flower Thrips Injury and Its Management in Texas High Plains Cotton Abdul Hakeem<sup>1</sup>, Megha N. Parajulee<sup>2</sup> and Jane K Dever<sup>2</sup>, (1)Texas A&M AgriLife Research, Department of Entomology, Lubbock, TX, (2) Texas A&M AgriLife Research and Extension Center, Lubbock, TX
- Variation in Plant Injury and Yield by Lepidopterous Pests in Selected Cultivars of Bt Cottons in New Mexico Jane Pierce and Patricia Monk, New Mexico State University, Las Cruces, NM
- 90. Standardized Insecticide Trial for Control of Tarnished Plant Bugs across the Mid-South 2017 - 2018 Scott D. Stewart<sup>1</sup>, Gus Lorenz<sup>2</sup>, Glenn Studebaker<sup>3</sup>, Sebe Brown<sup>4</sup>, Angus Catchot<sup>5</sup>, Jeff Gore<sup>6</sup>, Nick R. Bateman<sup>7</sup>, Matthew Williams<sup>8</sup> and Sandy Steckel<sup>1</sup>, (1)The University of Tennessee, Jackson, TN, (2) The University of Arkansas, Lonoke, AR, (3)University of Arkansas, Keiser, AR, (4)LSU AgCenter, Winnsboro, LA, (5)Mississippi State University, Mississippi State, MS, (6)Mississippi State University, Stoneville, MS, (7)University of Arkansas - RREC, Stuttgart, AR, (8) University of Tennessee, Jackson, TN
- 91. Efficacy of Insecticides for Management of Whiteflies in Cotton David Griffin, Apurba K Barman, Phillip M. Roberts and Michael D. Toews, University of Georgia, Tifton, GA

92. Evaluation of Pheromone Lures and Trap Types for Monitoring Helicoverpa armigera in Texas

Megha N. Parajulee, Stanley C. Carroll and Abdul Hakeem, Texas A&M AgriLife Research, Department of Entomology, Lubbock, TX

93. 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

- 94. Impacts of Decreased Measurements of Laboratory Susceptibility to Cry1Ac on Bollworm Survival and Damage to Dual- and Multi-Gene Cottons in Large Field Cages Nathan S. Little, Blake H. Elkins, Michelle Mullen, Omaththage P. Perera, Katherine A. Parys and Kerry Clint Allen, USDA-ARS SIMRU, Stoneville, MS
- 95. **Monitoring Bollworm Populations in Arkansas Using Arcmap** Courtney J Spinks and Glenn Studebaker, University of Arkansas, Keiser, AR
- 96. Chemotypic Variation of Caryophyllene Derivatives in Cotton Germplasm Lines

Jose L. Perez, Charles P.-C. Suh and Alois A. Bell, USDA-ARS ICCDRU, College Station, TX

- 97. **Monitoring Tarnished Plant Bug Resistance in Cotton Varieties** Glenn Studebaker<sup>1</sup>, Fred M. Bourland<sup>2</sup> and Courtney J Spinks<sup>1</sup>, (1) University of Arkansas, Keiser, AR, (2)University of Arkansas-NEREC, Keiser, AR
- Citrus Thrips (Scirtothrips citri), an Emerging Pest of Mid to Late Season Cotton in the Low Desert Michael D. Rethwisch and Kassandra W. Allan, University of California Cooperative Extension, Blythe, CA
- 99. Kurtomathrips Morrilli: An Occasional Pest of Cotton on Texas South Plains

D. Tyler Mays, Texas A&M AgriLife Extension Service, Brownfield, TX and Suhas Vyavhare, Texas A&M AgriLife Extension Service, Lubbock, TX

- 100. Evaluation of the Strider Field Scouting Technology in Northeast Texas Cotton Production David R. Drake, Texas A&M AgriLife Extension Service, Commerce, TX and Allen E. Knutson, Texas A&M AgriLife Extension, Dallas, TX
- 101. Mid-Season Management of Cotton Aphid and Silverleaf Whitefly in Pima Cotton Ian M Grettenberger, University of California-Davis, Davis, CA, CA and Treanna Pierce, UC Cooperative Extension, Shafter, CA
- 102. Evaluation of the Ecoshield AG-100 Insecticide Application Technology in Northeast Texas Cotton and Forage Sorghum Production 2017 and 2018 David R. Drake, Texas A&M AgriLife Extension Service, Commerce, TX
- 103. Activity of Insecticides on the Cotton Boll Weevil Control, Anthonomus grandis and the Effects on the Imbalance of Cotton Aphid, Aphis Gossypii Geraldo Papa<sup>1</sup>, Joao Antonio Zanardi Junior<sup>1</sup>, Marcos William Pedroso Menghini<sup>2</sup> and Vinicius de Matos Jacomassi<sup>2</sup>, (1)Unesp -Une Control Control
- Ilha Solteira/SP, Ilha Solteira/SP/Brazil, Brazil, (2)Unesp Ilha Solteira/SP, Ilha Solteira, Brazil
  2018 Estimates of Susceptibility of Bollworm Larvae (Helicoverpa zea) to Bt Proteins
  Greg Payne<sup>1</sup>, Bridget Piatt<sup>2</sup>, Timothy Dennehy<sup>3</sup> and Chris Sansone<sup>3</sup>, (1)University of West Georgia, Carrollton, GA, (2)University of West

(1)University of West Georgia, Carrollton, GA, (2)University of West Georgia, Dept. of Biology, Carrollton, GA, (3)BASF Agricultural Solutions, Research Triangle Park, NC

#### 105. 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

#### **Cotton Utilization Conference Posters**

106. **Bioactive Peptides from Glanded and Glandless Cottonseeds** Kandan Sethumadhavan, Heping Cao, Zhongqi He and H.N. Cheng, USDA-ARS-SRRC, New Orleans, LA

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

- 107. A Systems Approach to Weed Management in Enlist Cotton Hannah Wright<sup>1</sup>, Jason Norsworthy<sup>1</sup>, Jacob T. Richburg<sup>1</sup> and Tom Barber<sup>2</sup>, (1)University of Arkansas, Fayetteville, AR, (2)University of Arkansas-Extension, Lonoke, AR
- 108. Efficacy of Enlist, Xtend and Liberty Based Weed Control Systems in Cotton

Rohith Vulchi<sup>1</sup>, Scott Nolte<sup>1</sup>, Matthew Matocha<sup>1</sup>, Gaylon Morgan<sup>2</sup> and Josh McGinty<sup>3</sup>, (1)Texas A&M University, College Station, College Station, TX, (2)Texas A&M AgriLife Extension Service, College Station, TX, (3)Texas A&M AgriLife Extension Service, Corpus Christi, TX

- 109. Importance of Residual Herbicides in Xtendflex and Enlist Cotton Kyle Russell, Texas A&M AgriLife Research, Lubbock, TX, Peter A. Dotray, Texas Tech University, Texas A&M AgriLife Research and Extension Service, Lubbock, TX and J. Wayne Keeling, Texas A&M AgriLife Research and Extension Center, Lubbock, TX
- 110. **Evaluation of Weed Control Programs in HPPD-Tolerant Cotton** Jacob T. Richburg, Jason K Norsworthy, Jake A Patterson and Hannah Wright, University of Arkansas, Fayetteville, AR
- 111. Interactions between Sequential Applications of Dicamba and Glufosinate

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

#### 112. Assessment of Interline Mixtures in Enlist Cotton

Jake A Patterson<sup>1</sup>, Jason K Norsworthy<sup>1</sup>, Zachary D. Lancaster<sup>1</sup> and Tom Barber<sup>2</sup>, (1)University of Arkansas, Fayetteville, AR, (2)University of Arkansas-Extension, Lonoke, AR

113. Managing Palmer Amaranth with Xtendimax and Liberty with and without Warrant

Grace K. Flusche Ogden, Texas A&M AgriLife Research, Lubbock, TX, Peter A. Dotray, Texas Tech University, Texas A&M AgriLife Research and Extension Service, Lubbock, TX and John Everitt, Bayer Cropscience, Shallowater, TX

114. Weed Management and Economics in Bollgard II Xtendflex Cotton Systems

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 Cropscience, Shallowater, TX

115. Postemergence Control of PPO-Resistant Palmer Amaranth in Cotton

Wyatt Coffman<sup>1</sup>, Tom Barber<sup>2</sup>, Jason Norsworthy<sup>1</sup> and Mason Castner<sup>1</sup>, (1)University of Arkansas, Fayetteville, AR, (2)University of Arkansas-Extension, Lonoke, AR 116. Volatility of Xtendimax When Preceded by Glufosinate or As a Mixture on Bareground and over-the-Top Applications in Xtendflex Cotton

Mason Castner<sup>1</sup>, Jason K Norsworthy<sup>1</sup>, Maria L Zaccaro<sup>2</sup>, Lawson Priess<sup>1</sup>, Chad B Brabham<sup>2</sup> and Tom Barber<sup>3</sup>, (1)University of Arkansas, Fayetteville, AR, (2)Weed Science, Fayetteville, AR, (3)University of Arkansas-Extension, Lonoke, AR

117. Effect of Flooding Period and Seed Burial Depth on Palmer Amaranth Seed Germination

Lucas Xavier Franca, Darrin M. Dodds, Savana Davis, Jacob P. McNeal, Bradley Norris and John J Williams, Mississippi State University, Mississippi State, MS

118. Examining the Sensitivity of Palmer Amaranth to Chloroacetamide Herbicides

Zachary D. Lancaster<sup>1</sup>, Jason K Norsworthy<sup>1</sup>, Michael Houston<sup>1</sup> and Tom Barber<sup>2</sup>, (1)University of Arkansas, Fayetteville, AR, (2)University of Arkansas-Extension, Lonoke, AR

119. Palmer Amaranth (*Amaranthus palmeri*) and Thrips (*Thrips sp.*) Control with Various Dicamba + Insecticide Tank-Mixes in Cotton (*Gossypium hirsutum*)

Jacob P. McNeal, Darrin M. Dodds, Angus Catchot, Savana Davis, Lucas Xavier Franca, John J Williams and Bradley Norris, Mississippi State University, Mississippi State, MS

- 120. Premier Cotton Education -- Weed Management Danny J Nusser, Texas A&M AgriLife Extension, Amarillo, TX
- 121. Impact of Reduced Rates of Isoxaflutole on Cotton Growth and Yield

Donnie Miller, LSU AgCenter, St. Joseph, LA and Daniel O Stephenson IV, LSU AgCenter, Alexandria, LA

122. Impact of Reduced Rates of Mesotrione on Cotton Growth and Yield

Donnie Miller, LSU AgCenter, St. Joseph, LA and Daniel O Stephenson IV, LSU AgCenter, Alexandria, LA

123. Effect of Advanced Herbicide Technologies in System Based Approaches

Emi Kimura, Jonathan H. Ramirez and T. Royer, Texas A&M AgriLife Research and Extension Service, Vernon, TX

124. Response of Cotton to Low Rates of Clarity at Different Growth Stages

Ralph R. Hale, Taghi Bararpour, John W Seale, Jeff Gore, Don Cook and Bhupinder Singh, Mississippi State University, Stoneville, MS

125. Field Evaluation of 2,4-D and Dicamba Formulations on Cotton Response

John T. Buol and Daniel B. Reynolds, Mississippi State University, Mississippi State, MS

126. Response of Cotton to Low Rates of Enlist Duo at Different Growth Stages

Taghi Bararpour, Ralph R. Hale, Jeff Gore, John W Seale, Gurpreet Kaur and Daryl Chastain, Mississippi State University, Stoneville, MS

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