

# PROGRAM



## 2018 Annual Meeting

February 2-4, 2018

Jacksonville, FL

82<sup>nd</sup> Year

Southern Region

American Society for Horticultural Science

98<sup>th</sup> Year

Horticulture Section

Southern Association of Agricultural Scientists

## **History of the Southern Region of ASHS and the Horticulture Section of SAAS**

In 1899, the State Commissioners of Agriculture in several southern states founded “The Cotton States Association of the Commissioners of Agriculture”, which had horticulture involved in its very beginning. This is the founding organization that evolved into the modern day Southern Association of Agricultural Scientists (SAAS). In 1920, SAAS (which at that time was called Association of Southern Agricultural Works, ASAW) formalized the affiliation with horticulture by founding the Horticulture Section. In 1936, the American Society for Horticultural Sciences approved the Southern States Section, which is now termed the Southern Region of ASHS. In 1937, SAAS accepted the affiliation between the Southern States Section of ASHS with the Horticulture Section of SAAS. Thus, the Southern Region jointly has been a part of both ASHS (with a founding date of 1936) and SAAS (with a founding date 1920). This rich history is detailed in publications by Andy Anderson, 1982, and Paul Smeal, 1999 (available at [srashs.org](http://srashs.org)). The Southern Region encompasses the 14 southern states of Texas, Louisiana, Oklahoma, Arkansas, Mississippi, Georgia, Alabama, Florida, South Carolina, North Carolina, Virginia, West Virginia, Kentucky and Tennessee. Membership varies over the years from about 200 to 500 active members. Membership is composed of professors, research scientists, teachers and extension specialists from Universities, State, Federal and private research organizations, and industry. The Southern Region also contains a student section, the Association of Collegiate Branches, which is composed of student clubs from departments of horticulture and plant science across the region. The focus of the Southern Region is the Annual Meeting, which is held every February in conjunction with the Southern Association of Agricultural Scientists (SAAS). The Annual Meeting consists of presentations of scientific papers, student papers and judging competition, commodity group meetings, and awards presentations.

### **Goals:**

- **Encourage and facilitate the mutual exchange of ideas and information concerning horticultural research, extension, education, and industry in the south.**
- **Promote stronger bonds among horticulturists throughout the southern regions.**
- **Encourage participation in the national society of the American Society for Horticultural Science.**

## **Join us and become a part of the Tradition.**

### **President**

**Tim Davis**

Dept. of Horticultural Sciences  
Texas A&M University  
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Phone: 979-458-2048  
[t-davis5@tamu.edu](mailto:t-davis5@tamu.edu)

### **President-Elect**

**Eric Stafne**

Costal Research Extension Ctr.  
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### **Secretary-Treasurer**

**David Wm. Reed**

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**Web Site [srashs.org](http://srashs.org) Visit It**

**PROGRAM**  
**2018 ANNUAL MEETING**  
**Southern Region**  
**American Society for Horticultural Science**  
**Jacksonville, FL**  
**February 2-4, 2018**

**FRIDAY**

7:00 am -	6:00 pm	<b>Registration</b> Room: Hotel Lobby
9:00 am -	5:00 pm	<b>Southern Fruit Workers</b> Room: City Terrace 5
10:00 am -	1:00 pm	<b>ACB Club Share and Networking</b> Room: River Terrace 2
1:00 pm -	4:00 pm	<b>ACB Group Activities, Tour, and Meal</b> Room: River Terrace 2
1:00 pm -	6:00 pm	<b>Watermelon Research Group</b> Room: River Terrace 3
1:00 pm -	5:00 pm	<b>Horticulture Administrators</b> Room: Boardroom 1
4:00 pm -	5:00	<b>Benefits of Student Membership in ASHS</b> <b>Room:</b> River Terrace 2
5:00 pm -	6:00 pm	<b>Executive Committee Meeting</b> Room: Boardroom 1
5:00 pm -	until	<b>ACB Mixer TBA</b> Room: TBA

**SATURDAY**

7:00 am -	6:00 pm	<b>Registration</b> Room: 3rd Floor Sky Bridge
8:00 am -	12:00 pm	<b>J. Benton Storey Horticulture Judging Contest Setup</b> Room: River Terrace 1
8:00 am -	6:00 pm	<b>Watermelon Research Group</b> Room: River Terrace 3
8:00 am -	10:15 am	<b>Extension Section</b> Room: City Terrace 5
8:00 am -	10:30 am	<b>J. B. Edmond Undergraduate Student Paper Competition.</b> Room: City Terrace 6
9:00 am -	12:00 pm	<b>Vigna Crop Germplasm Committee</b> Room: City Terrace 9
10:00 am -	12:00 pm	<b>Authors Pin-up Posters</b> Room: Conference Center A
10:00 am -	2:30 pm	<b>Norman F. Childers M.S. Student</b> Room: City Terrace 6
10:30 am -	12:00 am	<b>Education Section</b> Room: City Terrace 5
12:30 pm -	3:30 pm	<b>Fruit Crops Section</b> Room: City Terrace 5
12:00 pm -	5:00 pm	<b>Poster Session Viewing</b>

- Room: Conference Center A  
**12:00 pm - 5:00 pm J. Benton Storey Horticulture Judging Contest**  
 Room: River Terrace 1  
**1:00 pm - 3:00 pm Vegetable Crops Section**  
 Room: City Terrace 4  
**1:00 pm - 5:00 pm National Cowpea Improvement Association**  
 Room: City Terrace 9  
**3:00 pm - 5:00 pm Warren S. Barham Ph.D. Student Paper Competition**  
 Room: City Terrace 6

## SUNDAY

- 7:00 am - 10:45 am Registration**  
 Room: 3rd Floor Sky Bridge  
**8:00 am - 10:45 pm Poster Session Viewing**  
 Room: Conference Center A  
**8:00 am - 11:00 am Vegetable Crops Section**  
 Room: City Terrace 9  
**8:00 am - 10:45 am Floriculture, Ornamentals and Turf Section**  
 Room: City Terrace 10  
**8:00 am - 10:45 am Fruit Crops Section**  
 Room: City Terrace 8  
**8:00 am - 10:45 am Postharvest & Biotechnology Section**  
 Room: Boardroom 2  
**9:00 am - 10:45am ACB Business Meeting**  
 Room: Grand Ballroom Section 6  
**11:00 am - 12:30 pm Annual Business Meeting and Award Program**  
 Room: Grand Ballroom Section 6  
**1:00 pm - 3:00 pm Poster Session Take Down**  
 Room: Conference Center A

## SAAS Program

- 2:30 pm - 3:30 pm SAAS Board Meeting**  
 Room: Grand Ballroom 6  
**4:00 pm - 5:00 pm SAAS General Business Meeting**  
 Room: Grand Ballroom 6

## SAAS Super Bowl Party

- 4:15 - until** Room: Grand Ballroom 4/5

## TUESDAY

- 7:00 am - 10:00 pm SAAS Board Breakfast Meeting**  
 Room: Boardroom 2

## REGISTRATION

**Friday** 7:00 am - 6 pm,  
Hotel Lobby  
**Saturday** 7:00 am - 6 pm,  
3rd Floor Sky Bridge  
**Sunday** 7:00 am - 10:30 am,  
3rd Floor Sky Bridge

**FRIDAY, February 2, 2018**

### ACB Activities

**Room:** River Terrace 2  
**Time:** 10:00 - 12:00 Club Share  
12:00-4:00 Activity/Tour/Meal TBA  
**Presiding:** Preston Smith, ACB-President  
Steve Still, ACB Advisor

### Benefits of Student Membership in ASHS

**Room:** River Terrace 2  
**Time:** 4:00 - 5:00  
**Presiding:** Cindy Smith, ASHS

### SRASHS Executive Committee Meeting

**Room:** Boardroom 1  
**Time:** 5:00 - 6:30  
**Presiding:** Sarah White, Chair

### Working Groups

Listed at end of program

**SATURDAY, February 3, 2018**

## STUDENT COMPETITIONS

### J. BENTON STOREY UNDERGRADUATE JUDGING CONTEST

**Room:** River Terrace 1  
**Time:** 8:00 - 12:00 Judging Contest Set-Up  
12:00-5:00 Judging Contest  
**Presiding:** Kelsey Brazelton, ACB President-  
Elect  
Steve Still, ACB Advisor

### J. B. EDMOND UNDERGRADUATE STUDENT PAPER COMPETITION

**Room:** City Terrace 6  
**Presiding:** Preston Smith, ACB-President,  
Moderator  
Tim Davis, SRASHS President,  
Introduce Session  
Cynthia McKenney and Whitney  
Griffin, Section Co-Chairs &  
Judging Coordinators

**Abstracts:** To publish abstract in *HortScience*, see instructions at end of program. Submit on disk at meeting or email to Co-Chair: whitneygriffin@tamu.edu

**8:00 am - 10:30 am** Order of presentations determined by drawing at beginning of contest.

**Changes in Ripeness Attributes of Peaches and Nectarines during Postharvest Storage.** Mary C. Siebenmorgen<sup>1\*</sup>, Renee T. Threlfall<sup>1</sup>, and Margaret L. Worthington<sup>2</sup>, <sup>1</sup>2650 N. Young Avenue, Food Science Department, University of Arkansas, Fayetteville, AR 72704, <sup>2</sup>316 Plant Science, Department of Horticulture, University of Arkansas, Fayetteville, AR 72701. (mcsieben@email.uark.edu)

**Creating a Reference Collection of Fall Pollinators Observed on Cucumber and Pepper Crops Grown with Companion Plants in Central Texas'**, Lauren Kilpatrick, John Montoya and Michael Arnold, Department of Horticultural Sciences, Texas A&M University, College Station, TX 77843-2133 (lauren.kil@tamu.edu)

**Direct and nitrogen form-dependent rhizosphere acidification in southern highbush blueberry (*Vaccinium corymbosum* interspecific hybrids)** Christopher S. Imler\*, Camila Arzola, and Gerardo H. Nunez, Horticultural Sciences Department, University of Florida, Gainesville, FL 32611. (g.nunez@ufl.edu)

**Galia Specialty Melon Evaluations and Opportunities.** Elizabeth Indermaur\*, Jonathan Schultheis, and Keith Starke., Department of Horticultural Science, North Carolina State University, Raleigh, NC 27695. (ejinderm@ncsu.edu)

**Impression of Consumer Sensory and Composition Attributes of Fresh-Market Blackberries.** Aubrey N. Dunteman<sup>1\*</sup>, Renee T. Threlfall<sup>1</sup>, and John R. Clark<sup>2</sup>, <sup>1</sup>2650 N. Young Avenue, Food Science Department, University of

Arkansas, Fayetteville, AR 72704, <sup>2</sup>316 Plant Science, Department of Horticulture, University of Arkansas, Fayetteville, AR 72701. (anduntem@email.uark.edu)

**Influence of Pecan Shell Mulch on Rabbiteye Blueberry Establishment.** Jacob T. Kelley<sup>1\*</sup>, James D. Spiers<sup>1</sup>, Ashley A. Hoppers<sup>2</sup>, Raymond J. Kessler<sup>1</sup>, <sup>1</sup>Department of Horticulture, Auburn University, Auburn, Alabama 36849, <sup>2</sup>University of Georgia Extension, Liberty County, Hinesville, GA 31313. (jtk0016@auburn.edu)

**Pollen effects on fruit shape traits in *Capsicum annuum* L.** Yang Yue\*, Yuru Chang and Bala Rathinasabapathi Horticultural Sciences Department, University of Florida, Gainesville, FL 32611-0690. (yangyue@ufl.edu)

**Role of antioxidants on the incidence of white drupelet disorder in blackberry cultivars.** Katlynn Murphy\*, Brian Lawrence, Juan Carlos Melgar, Department of Plant and Environmental Sciences, Clemson University, SC 29634. (katlynn@clemson.edu)

**Wood Dust Incorporation Into a 5/8" Pine Bark Medium to Improve Soil Water Holding Capacity in Nursery Production Potting Soils.** Schyler Lee, Ed Bush and Mark Wilson, Louisiana State University Agriculture Center, School of Plant and Soil Environmental Sciences, 137 J. C. Miller Hall, 70803. (ebush@agcenter.lsu.edu).

## NORMAN F. CHILDERS M.S. GRADUATE STUDENT PAPER COMPETITION

**Room:** City Terrace 6

**Presiding:** Eric Stafne, Chair

**Abstracts:** To publish abstract in *HortScience*, see instructions at end of program. Submit on disk at meeting or email to Chair: eric.stafne@msstate.edu

**10:30 am – 3:30 pm Order of presentations determined by drawing at beginning of contest.**

**A comparison of nutrient film technique, deep flow technique and shallow aggregate ebb and flow systems for hydroponic basil production.** Samuel Doty and Michael R. Evans, 316 Plant Science Building, Department of Horticulture, University of Arkansas System Division of Agriculture, Fayetteville, AR, 72701. (swdoty@uark.edu)

**Effects of *Cucurbita* Rootstocks on Tolerance of Grafted Seedless Watermelon Seedlings to Chilling Stress.** Sylvia Willis\* and Xin Zhao, Horticultural Sciences Department, University of Florida, Gainesville, FL 32611. (zxin@ufl.edu)

**Efficacy of saponins against *E. coli* in a nutrient film technique hydroponic system.** Nathan J. Eylands<sup>1</sup>, Angela Shaw<sup>2</sup> and Michael R. Evans<sup>1</sup>, <sup>1</sup>316 Plant Science Building, Department of Horticulture, University of Arkansas System Division of Agriculture, Fayetteville, AR 72701, <sup>2</sup>2313 Food Sciences Building, Department of Food Science and Human Nutrition, Iowa State University, Ames, IA 50011. (njeyland@uark.edu)

**Evaluating the Effects of Antioxidants Extracted from Greenhouse and Field-grown Sweetpotato (*Ipomoea batatas* L.) Leaves on the Shelf-life of Catfish Nuggets.** Kenisha O. Gordon\* and James O. Garner, Jr. Department of Agriculture, University of Arkansas at Pine Bluff, Mail Slot 4913, 1200 North University Drive, Pine Bluff, AR 71601. (gordonk1474@uapb.edu)

**Evaluation of a New Herbicide for Sensitive Herbaceous Ornamental Crops.** John R. Penney, Adam F. Newby, Charles H. Gilliam, and J. Raymond Kessler. Department of Horticulture, Auburn University, Alabama, AL 36849. (jrp0042@auburn.edu)

**Fine mapping of egusi trait locus (*eg*) in watermelon using SNP markers.** Lucky Paudel<sup>1\*</sup>, Josh Clevenger<sup>2</sup> and Cecilia McGregor<sup>1</sup>, <sup>1</sup>Institute of Plant Breeding, Genetics & Genomics, University of Georgia, 1111 Plant Sciences Building, Athens, GA 30602., <sup>2</sup>Institute of Plant Breeding, Genetics & Genomics, University of Georgia, 0248 CAGT, 111 Riverbend Road, Athens, GA 30602. (lp23710@uga.edu)

**Influence of Compost Application Method on Soil Quality and Plant Growth in Organic Spinach Production.** Craig Frey\*, Xin Zhao, and Zack Black, Horticultural Sciences Department, University of Florida, Gainesville, FL 32611. (zxin@ufl.edu)

**Location Effects on Crape Myrtle Bark Scale Incidence.** Kevin Chretien\* and Derald A. Harp, School of Agriculture, Texas A&M University – Commerce, Commerce, TX 75429 (derald.harp@tamuc.edu)

**Occurrence and Possible Causes of Peach Skin Streaking.** Linus T. Schmitz\*, Guido Schnabel and Mengjun Hu, Department of Plant and Environmental Sciences, Clemson University, 105 Collings St.,



Clemson, SC 29634. (linuss@g.clemson.edu)

**Physicochemical and Sensory Ripeness Attributes of Arkansas-grown Peaches and Nectarines.** Molly Felts<sup>1\*</sup>, Renee T. Threlfall<sup>1</sup>, and Margaret L. Worthington<sup>2</sup>, <sup>1</sup>2650 N. Young Avenue, Food Science Department, University of Arkansas, Fayetteville, AR 72704, <sup>2</sup>316 Plant Science, Department of Horticulture, University of Arkansas, Fayetteville, AR 72701. (mretherf@email.uark.edu)

**Preharvest and postharvest effects on internal necrosis incidence and severity in 'Covington' sweetpotato.** Fernando Montero de Espinosa\* and Jonathan R. Schultheis, <sup>1</sup>North Carolina State University, Department of Horticultural Science, 2721 Founders Drive, Raleigh, NC 27695-7609 (fmonter@ncsu.edu)

**Preliminary Assessment of Selected Hybrid Bunch Grape Rootstocks.** Enfeng Xu\*, Elina D. Coneva, J. Raymond Kessler, and Edgar L. Vinson, Department of Horticulture, Auburn University, Alabama, AL 36849. (ezx0001@auburn.edu)

**Response of Plant Development as Influenced by Substrate Water Content During the First Two Weeks of Production Post Transplant on *Catharanthus roseus* 'Pacifica Deep Orchid'.** Anthony T. Bowden\*, Adam F. Newby, Glenn B. Fain, and Daniel E. Wells, Department of Horticulture, Auburn University, Auburn, AL 36849-5408. (atb0013@auburn.edu)

**Retrofitting Vertically Shoot-Positioned Petit Manseng to Improve Vineyard Crop Yield** Rachael White\* and Cain Hickey, Department of Horticulture Sciences, The University of Georgia, Athens, GA 30606 (rsw63409@uga.edu)

**Table stock potato cultivar response to preharvest vine desiccation timing.** Fernanda Souza Krupek\*, Peter J. Dittmar, Lincoln Zotarelli, and Steve A. Sargent, Horticultural Sciences Department, University of Florida, Gainesville, FL 32611. (krupek@ufl.edu)

**The effects of grafting on disease incidence of *Fusarium oxysporum* f. sp. *niveum* races 1 and 2 in watermelon.** Josh Yeargin<sup>1\*</sup>, Richard L. Hassell<sup>1</sup>, and Pat Wechter<sup>2</sup>, <sup>1</sup>Clemson University CREC 2700 Charleston SC 29414, <sup>2</sup>USDA-ARS Vegetable Center 2700 Savannah Highway Charleston SC 29414. (jmyearg@g.clemson.edu)

**The Impact of Daily Light Integral Supplements on Biomass Accumulation and Nutrient Uptake in Hydroponically Grown Genovese Pesto Basil.**

Hunter A. Hammock\*, Dean A. Kopsell, and Carl E. Sams, Department of Plant Sciences, The University of Tennessee, Knoxville, TN, 37996. (hhammoc1@vols.utk.edu)

**Trends in seasonal nutrient movement in peach trees due to variable fall climate.** Brian Lawrence\* and Juan Carlos Melgar, Department of Plant and Environmental Sciences, Clemson University, Clemson, SC 29631. (btlawre@clemson.edu)

**Unlocking the Genetic Code of Brown Rot Tolerance in Peach.** Wanfang Fu, Cassia Da Silva Linge, Ralph Burrell, Guido Schnabel and Ksenija Gasic. Clemson University, Dep. of Plant and Environmental Sciences, Clemson, SC. (wfu@clemson.edu)

## WARREN S. BARHAM Ph.D. GRADUATE STUDENT PAPER COMPETITION

**Room:** City Terrace 6

**Presiding:** Eric Stafne, Chair

**Abstracts:** To publish abstract in *HortScience*, see instructions at end of program. Submit on disk at meeting or email to Chair: eric.stafne@msstate.edu

**3:30-6:00 pm Order of presentations determined by drawing at beginning of contest.**

**Association Mapping for Iron Deficiency Chlorosis in Worldwide Cowpea.** Waltram Ravelombola<sup>1</sup>, Jun Qin<sup>1</sup>, Ainong Shi<sup>1</sup>, J. Creighton Miller, Jr. <sup>2</sup>, Douglas Scheuring<sup>2</sup>, Yuejin Weng<sup>1</sup>, Gehendra Bhattarai<sup>1</sup>, Lingdi Dong<sup>1</sup>, and Wei Yang<sup>1</sup>  
<sup>1</sup>Department of Horticulture, 316 PTSC, University of Arkansas, Fayetteville, AR 72701, USA; and <sup>2</sup>Department of Horticultural Sciences, 2133 TAMU, Texas A&M University, College Station, TX 77843, USA. (A. Shi, E-mail: ashi@uark.edu)

**Determine water requirement for peach trees in a humid climate.** Carlos Zambrano-Vaca\*<sup>1</sup>, Lincoln Zotarelli<sup>1</sup>, Kelly T. Morgan<sup>2</sup>, Kati W. Migliaccio<sup>3</sup>, Richard C. Beeson Jr.<sup>4</sup>, and José X. Chaparro<sup>1</sup>. <sup>1</sup>Horticultural Sciences Department, University of Florida, Gainesville, FL 32611, <sup>2</sup>Southwest Florida Research and Education Center University of Florida, Immokalee, FL 3414, <sup>3</sup>Agricultural and Biological Engineering Department, University of Florida, Gainesville, FL 32611. <sup>4</sup>Mid-Florida Research and Education Center, Apopka FL 32703. (lzota@ufl.edu)

**Development of Omics-Based Resources to Characterize the Anthocyanin Pathway in Blueberry (*Vaccinium* sp.).** Kelsey J. Zielinski<sup>1,2\*</sup>, Mary Grace<sup>1</sup>, Massimo Iorizzo<sup>1,3</sup>, and Mary Ann Lila<sup>1,2</sup>, Plants for Human Health Institute, North Carolina State University at the NC Research Campus, 600 Laureate Way, Kannapolis, NC 28081, <sup>2</sup>Department of Food, Bioprocessing, and Nutrition Sciences, <sup>3</sup>Department of Horticultural Science, North Carolina State University, Raleigh, NC 27695. (kzielin@ncsu.edu)

**Discovery and Validation of Candidate Gene Allelic Variation Associated with Fruit Shape in Watermelon (*Citrullus lanatus*).** Reeve Legendre\* and Cecilia McGregor, Department of Horticulture, University of Georgia, Athens, GA 30602. (reeve.legendre@uga.edu)

**Hollow heart formation in grafted and non-grafted watermelon.** Marlee A. Trandel, Penelope Perkins-Veazie, Jonathan Schultheis, Chris Gunter, and Eva Johannes. North Carolina State University. (matrande@ncsu.edu)

**Responses of Sweet Basil to Different DLIs in Photosynthesis, Morphology, Yield, and Nutritional Quality.** Haijie Dou<sup>\*</sup>, Genhua Niu<sup>2</sup>, and Mengmeng Gu<sup>3</sup>, <sup>1</sup>Department of Horticultural Sciences, Texas A&M University, College Station, TX 77843, <sup>2</sup>Texas A&M AgriLife A&M Circle, El Paso, TX 79927, <sup>3</sup>Department of Horticultural Sciences, Texas A&M AgriLife Extension Service, College Station, TX 77843. (hajiedou@tamu.edu)

**Testing irrigation and fertilization rates for young peach plants in controlled environment.** Bruno Casamali<sup>1\*</sup>, Marc W. van Iersel<sup>2</sup>, and Dario J. Chavez<sup>1</sup>. <sup>1</sup>1109 Experiment St., Department of Horticulture, University of Georgia, Griffin, GA 30223. <sup>2</sup>1111 Miller Plant Science Bldg., Department of Horticulture, University of Georgia, Athens, GA 30602. (bcasamali@uga.edu)

**Validation of a Stable Major-Effect Flowering Time Quantitative Trait Locus in Watermelon** Winnie Gimode<sup>\*1</sup>, Josh Clevenger<sup>2</sup> and Cecilia McGregor<sup>1</sup>, <sup>1</sup>Institute of Plant Breeding, Genetics & Genomics, University of Georgia, 1111 Plant Sciences Building, Athens, GA 30602, <sup>2</sup>Center for applied Genetic Technologies (CAGT), University of Georgia, 111 Riverbend Rd Athens, GA 30602 (wrgimode@uga.edu)

**Where do Nutrients Go When Peach Trees are Fertilized?** Qi Zhou\* and Juan Carlos Melgar, Department of Plant and Environmental Sciences,

Clemson University, Clemson, SC 29634. (qzhou3@clemson.edu)

## SECTION TITLES

### EXTENSION SECTION

**Room:** City Terrace 5

**Presiding:** Elina Coneva, Chair

**Abstracts:** To publish abstract in *HortScience*, see instructions at end of program. Submit on disk at meeting or email to Chair: edc0001@auburn.edu

**8:00 Extension Education on Peach Dormancy and Innovative Bud Break Techniques in Low-Chill Winter Season.** Elina Coneva\*, Edgar Vinson and James Pitts, 101 Funchess Hall, Department of Horticulture, Auburn University, Auburn, AL 36849. (edc0001@auburn.edu)

**8:15 Sweetpotato Vine Multiplication Training in West and North Africa.** Dilip Nandwani, Department of Agriculture and Environmental Sciences, College of Agriculture, Tennessee State University, Nashville, TN 37209. (dnandwan@tnstate.edu)

**8:30 Functional Motivations of Extension Master Gardeners.** Sheri Dorn<sup>1\*</sup>, Bodie Pennisi<sup>1</sup>, Milton Newberry<sup>2</sup>, and Ellen Bauske<sup>3</sup>, <sup>1</sup>1109 Experiment Street, Department of Horticulture, University of Georgia, Griffin, GA 30224, <sup>2</sup>Department of Agricultural Leadership, Education and Communication, University of Georgia, 142A Four Towers Building, 405 College Station Road, Athens, GA 30602, <sup>3</sup>1109 Experiment Street, Department of Plant Pathology, University of Georgia, Griffin, GA 30224. (sdorn@uga.edu)

**8:45 Familiarity and Attributes of Plantable Biodegradable Containers Among Environmental Horticulture Firms.** Bethany A. Harris<sup>1</sup>, Wojciech J. Florkowski<sup>2</sup>, and Bodie V. Pennisi<sup>1</sup>, Department of Horticulture<sup>1</sup> and Department of Agricultural and Applied Economics<sup>2</sup>, University of Georgia, 1109 Experiment St., Griffin GA 30223. (bah5191@uga.edu)



**9:00 Mapping of how Nursery and Greenhouse Growers Think About Water Conservation and Treatment Technologies to Inform Extension Efforts.** Alexa J. Lamm\*, Laura Warner, and Peyton Beattie, Department of Agricultural Education and Communication, University of Florida, Gainesville, FL 32611. (alamm@ufl.edu)

**9:15 Break**

**9:30 Nursery and Greenhouse Growers' Extension Initiative and Communication Preferences.** Peyton Beattie\*, Alexa J. Lamm, and Laura Warner, Department of Agricultural Education and Communication, University of Florida, Gainesville, FL 32611. (pbeattie@ufl.edu)

**9:45 Exotic Citrus Diseases Website, Non-Thesis Master's Project.** Ajia M Paolillo<sup>1\*</sup>, Megan M. Dewdney<sup>1</sup>, Alexa J. Lamm<sup>2</sup>, Joy N. Rumble<sup>2</sup>, William S. Castle<sup>1</sup>, and Thomas A. Obreza<sup>3</sup>. <sup>1</sup>Citrus Research and Education Center, University of Florida, Lake Alfred, FL 33850. <sup>2</sup>Bryant Hall, Department of Agricultural Education and Communication, University of Florida, Gainesville, FL 32611. <sup>3</sup>UF/IFAS Extension Administration, University of Florida, Gainesville, FL 32611. (ajia.paolillo@gmail.com)

**10:00 Development of a High School Viticulture Course Curriculum.** Justin Scheiner, Department of Horticultural Sciences, Texas A&M University, Texas A&M AgriLife Extension, HSFB, 2134 TAMU, College Station, TX 77843. (jscheiner@tamu.edu)

**10:15 Coping with Rose Rosette Disease in the Great Plains.** Michael A. Schnelle<sup>1\*</sup>, Jennifer D. Olson<sup>2</sup>, and Jason Griffin<sup>3</sup>, <sup>1</sup>358 Agriculture Hall, Department of Horticulture and Landscape Architecture, Oklahoma State University, Stillwater, OK 74078, <sup>2</sup>127 Noble Research Center, Department of Entomology and Plant Pathology, Oklahoma State University, Stillwater, OK 74078, and <sup>3</sup>John C. Pair Horticulture Center, 1901 East 95<sup>th</sup> Street South, Haysville, KS 67060. (mike.schnelle@okstate.edu)

**10:30 Horticultural Practices and the Potential for Disease in Georgia Blueberries.** Renée M. Allen<sup>1\*</sup>, Phillip M. Brannen<sup>2</sup>, Harald Scherm<sup>2</sup>, and D. Scott NeSmith<sup>3</sup>, <sup>1</sup>203 S Dixon Street, UGA Extension, University of

Georgia, Alma, GA 31510, <sup>2</sup>2106 Miller Plant Sciences Building, Department of Plant Pathology, Athens, GA 30602, <sup>3</sup>1109 Experiment Street, Department of Horticulture, University of Georgia, Griffin, GA 30223-1797. (reneemh@uga.edu)

## EDUCATION SECTION

**Room:** City Terrace 5

**Presiding:** Brian Pearson, Chair

**Abstracts:** To publish abstract in *HortScience*, see instructions at end of program. Submit on disk at meeting or email to Chair: bpearson@ufl.edu

**11:00 High Impact Learning Experiences for Students in the College of Agriculture at Auburn University.** Amy N. Wright\*. Department of Horticulture, 104A Comer Hall, Auburn University, Auburn, AL 36849. (wriham@auburn.edu)

**11:15 Digital Portfolio: A Way to Engage Students in Hands-on Learning Activities in Online Course.** Bodie V. Pennisi\*, Department of Horticulture, 1109 Experiment St., University of Georgia- Griffin, Griffin, GA 30223. (bpennisi@uga.edu)

**11:30 Horticulture Student Learning Outcome Assessment at the University of Arkansas: An Update.** Garry V. McDonald\* and Wayne A. Mackay, Department of Horticulture, 316 Plant Sciences Building, University of Arkansas, Fayetteville, AR 72701. (gmcdonal@uark.edu)

## FRUIT CROPS SECTION

**Room:** City Terrace 5

**Presiding:** Erick Smith, Chair

**Abstracts:** To publish abstract in *HortScience*, see instructions at end of program. Submit on disk at meeting or email to Chair: ericks@uga.edu

**1:00 Evaluation of Ten Strawberry Cultivars for Their Production Potential in Central Alabama.** Edgar L. Vinson, III<sup>1\*</sup>, Elina D. Coneva<sup>1</sup>, James A. Pitts<sup>2</sup>, and J. Raymond Kessler<sup>1</sup>, <sup>1</sup>101 Funchess Hall, Department of Horticulture, Auburn University, AL 36849, <sup>2</sup>Chilton Research and Extension Center, 120 County Road 756, Clanton, AL 35045. (vinsoed@auburn.edu)

- 1:15 Evaluation of pre-emergent herbicide applications for plasticulture strawberry production.** Jackie Lee<sup>1\*</sup> and Amanda McWhirt<sup>1</sup>, <sup>1</sup>2301 S. University, Department of Horticulture, University of Arkansas Cooperative Extension Service, Little Rock, AR 72204. (jalee@uaex.edu)
- 1:30 Fruit Quality and Performance of Golden Kiwifruit (*Actinidia chinensis*) Cultivars in Central Alabama.** James D. Spiers<sup>\*1</sup>, James A. Pitts<sup>2</sup>, Ashley Brantley<sup>1</sup>, Lingbo Xie<sup>1</sup>, and J. Raymond Kessler<sup>1</sup>. <sup>1</sup>Department of Horticulture, Auburn University, Auburn, Alabama 36849, <sup>2</sup>Chilton Research and Extension Center, Clanton, Alabama 35045. (jds0017@auburn.edu)
- 1:45 Assessing Secondary Bud Fruitfulness of Two *Vitis* Cultivars Grown on the Texas High Plains: Second Year Update.** Thayne Montague\*, Edward Hellman, Pierre Helwi, and Emily Graff. Texas AgriLife Research and Extension Center, Lubbock, TX 79403-6603. Department of Plant and Soil Science, Texas Tech University, Lubbock, TX 79409-2122. (thayne.montague@ttu.edu)
- 2:00 Break**
- 2:15 Low Tunnels Affect Fruit Quality of Organically Managed Strawberries in Field and High tunnels.** Tekan Rana\*, Amy Ballard, John Beck, John Kimes and Sanjun Gu. Cooperative Extension, North Carolina Agricultural and Technical State University. Greensboro, NC 27420. (tsrana@aggies.ncat.edu)
- 2:30 Frost Protection of Low Tunnels to Organically Managed Strawberries in Field and High Tunnels.** Amy Ballard\*, Tekan Rana, John Beck, John Kimes and Sanjun Gu. Cooperative Extension, North Carolina Agricultural and Technical State University. Greensboro, NC 27420. (aeballard@aggies.ncat.edu)
- 2:45 Evaluating Novel Hybrid Pierce's Disease Tolerant Winegrape Varieties on Three Training Systems.** Rachel A. Itle<sup>1\*</sup>, Fritz A. Westover<sup>2</sup>, Paula J. Burke<sup>3</sup>, Cain C. Hickey<sup>4</sup>, Daniel L. Jackson<sup>5</sup>, Jason T. Lessl<sup>5</sup>, and Bruce J. Cross<sup>7</sup>, <sup>1</sup>Department of Horticulture, University of Georgia, 1109 Experiment Street, Griffin, GA 30223, <sup>2</sup> Westover Vineyard Advising, 815 West 41st Street, Houston, TX 77018, <sup>3</sup>University of Georgia Extension, 900 Newnan Road, Carrollton, GA 30117, <sup>4</sup>Department of Horticulture, University of Georgia, 200 Hoke Smith Building, Athens GA 30602, <sup>5</sup>Agricultural and Environmental Services Laboratories, University of Georgia, 2400 College Station Road, Athens, GA 30602, <sup>6</sup>Trillium Vineyard, 1994 Old Bush Mill Road, Bremen, GA 30110. (ritle@uga.edu)
- 3:00 Comparing the use of tissue culture and rooted cutting plants of 'MP-29' rootstock as a starting material for peach budding in the Southeastern US.** Dario J. Chavez<sup>1\*</sup>, Tom Beckman<sup>2</sup>, and Jeff Cook<sup>3</sup>. 1109 Experiment Street, Department of Horticulture, University of Georgia, Griffin Campus, Griffin, GA 30223; <sup>2</sup>USDA-Agricultural Research Service, Southeastern Fruit and Tree Nut Research Laboratory, Byron, GA 31008; <sup>3</sup> Ivy Street Butler, Taylor County Extension Office, GA 31006. (dchavez@uga.edu)
- 3:15 Break**
- 3:30 Lack of chill and the use of hydrogen cyanimide applications in peach production in Georgia.** Dario J. Chavez<sup>1</sup> and Jeff Cook<sup>2</sup>. 1109 Experiment Street, Department of Horticulture, University of Georgia, Griffin Campus, Griffin, GA 30223; <sup>2</sup> Ivy Street Butler, Taylor County Extension Office, GA 31006. (dchavez@uga.edu)
- 3:45 Investigating the cause of red blotch disease in Grapevines (*Vitis spp*) in Oklahoma.** Sara Wallace\*, J. Olson, F. Ochoa-Corona. Department of Entomology and Plant Pathology, Oklahoma State University, Stillwater, OK 74078. (sara.wallace@okstate.edu)

## VEGETABLE CROPS SECTION

**Room:** City Terrace 4

**Presiding:** Rick Snyder, Chair

**Abstracts:** To publish abstract in *HortScience*, see instructions at end of program. Submit on disk at meeting or email to Chair: Rick.Snyder@msstate.edu

**1:00 Responses of Sweet Basil to Different DLIs in Photosynthesis, Morphology, Yield, and Nutritional Quality.** Haijie Dou<sup>1\*</sup>, Genhua Niu<sup>2</sup>, and Mengmeng Gu<sup>3</sup>, <sup>1</sup>Department of

Horticultural Sciences, Texas A&M University, College Station, TX 77843, <sup>2</sup>Texas A&M AgriLife Research and Extension Center at El Paso, 1380 A&M Circle, El Paso, TX 79927, <sup>3</sup>Department of Horticultural Sciences, Texas A&M AgriLife Extension Service, College Station, TX 77843. (haijiedou@tamu.edu)

**1:15 Influence of Seed Size and Spacing on Turmeric Production.** Thomas W. Zimmerman\*, University of the Virgin Islands Agricultural Experiment Station, RR#1 Box 10,000, Kingshill VI 00850. (tzimmer@uvi.edu)

**1:30 Evaluation of Production Practices for Tolerance to Cucurbit Leaf Crumple Virus in Yellow Squash and Zucchini.** Timothy Coolong<sup>1\*</sup>, Bhabesh Dutta<sup>2</sup>, Alton Sparks<sup>3</sup>, and Rajagopalbabu Srinivasan<sup>4</sup>, <sup>1</sup>Department of Horticulture, University of Georgia, 2360 Rainwater Road, Tifton, GA 31793, <sup>2</sup>Department of Plant Pathology, University of Georgia, 2360 Rainwater Road, Tifton, GA 31793, <sup>3</sup>Department of Entomology, University of Georgia, 2360 Rainwater Road, Tifton, GA 31793, <sup>4</sup>Department of Entomology, University of Georgia, 1109 Experiment St., Griffin, GA. (tcoolong@uga.edu)

**1:45 A Comprehensive Economic Analysis of Grafted Tomato Production in High Tunnel and Open Field Systems.** Xin Zhao<sup>1\*</sup>, Shengwei Hu<sup>2</sup>, Craig Frey<sup>1</sup>, and Zhifeng Gao<sup>2</sup>, <sup>1</sup>Horticultural Sciences Department, <sup>2</sup>Food and Resource Economics Department, University of Florida, Gainesville, FL 32611. (zxin@ufl.edu)

**2:00 Break**

**2:15 Chitosan-Based Biostimulant Effects on Sweet Onion Crop.** Juan C. Díaz-Pérez<sup>1\*</sup>, Jesús Bautista<sup>1</sup>, Gunawati Gunawani<sup>1</sup>, Anthony Bateman<sup>1</sup> and Cliff Riner<sup>2</sup>, <sup>1</sup>Colegio de Postgraduados, Campus Montecillo, Texcoco Estado de México C.P. 56230, <sup>1</sup>Department of Horticulture, University of Georgia, Tifton GA 31793-5766. <sup>2</sup>Vidalia Onion and Vegetable Research Center, University of Georgia, Lyons, GA 30436. (jcdiaz@uga.edu)

**2:30 Incidence of blossom-end rot and calcium accumulation during fruit development in**

**bell pepper varieties.** Andres Mayorga-Gomez<sup>1</sup>, Tim Coolong<sup>2</sup>, <sup>1</sup> Department of Horticulture, University of Georgia, 1111 Plant Sciences Bldg, Athens, GA 30602, <sup>2</sup> Department of Horticulture, University of Georgia, 2360 Rainwater Road, Tifton, GA 31793, (Mayorga@uga.edu)

## POSTERS

**Room:** Conference Center A

**Presiding:** Amanda McWhirt, Chair

**Abstracts:** To publish abstract in *HortScience*, see instructions at end of program. Submit on disk at meeting or email to Chair: amcwhirt@uaex.edu

**Authors Pin-Up Posters:** Saturday, 10:00 am – noon

**Poster Viewing:**

Saturday noon to 5:00 pm

Sunday 8:00-10:45 am

**Authors at their poster:**

Saturday, 1:00-3:00 pm even numbered posters

Saturday, 3:00-5:00 pm odd numbered posters

**Take-down:** Sunday, 1:00 pm – 3:00 pm

**Student Poster Competition**

UG = Indicates undergraduate poster titles

G = Indicates graduate poster titles

## Education

1) **The Auburn University Aquaponics Initiative: Leveraging University Resources to Enhance Teaching and Research.** Daniel E. Wells<sup>1\*</sup>, David M. Blersch<sup>2</sup>, Jesse Chappell<sup>3</sup>, Terry Hanson<sup>3</sup>, Tung-Shi Huang<sup>4</sup>, and Mollie Smith<sup>3</sup>. <sup>1</sup>101 Funchess Hall, Department of Horticulture, Auburn University, Auburn, AL 36849; <sup>2</sup>203 Corley Building, Biosystems Engineering Department, Auburn University, Auburn, AL 36849; <sup>3</sup>203 Swingle Hall, School of Fisheries, Aquaculture, and Aquatic Sciences, Auburn University, Auburn, AL 36849; <sup>4</sup>260 Lem Morrison Drive, Auburn University, Auburn, AL 36849. (wellsda@auburn.edu)

2) **Student Attendance, Reported Study Time, Major and Mid-term Grades as Predictors of Final Course Grades Across Fifteen Years of Undergraduate and Graduate Plant Materials Courses.** Michael A. Arnold\*. Department of Horticultural Sciences, Texas A&M University, College

Station, TX 77843-2133. (ma-arnold@tamu.edu)

- 3) **Using Bluetooth-enabled Sensors to Teach Undergraduate Students about Protected Agriculture.** Gerardo H. Nunez\*. Horticultural Sciences Department, University of Florida, Gainesville, FL 32611. (g.nunez@ufl.edu)

#### Floriculture, Ornamentals and Turf

- 4UG) **Long-term Effects of Compost on Landscape Soils and Performance of Warm-Season Annuals.** Grace Myrick<sup>1</sup>\*, Derald A. Harp<sup>1</sup>, Steve George<sup>2</sup>, Todd Williams<sup>3</sup>, Aimee Sandifeer<sup>3</sup>, and Shelly Spearman<sup>3</sup>. <sup>1</sup>School of Agriculture, Texas A&M University – Commerce, Commerce, TX 75429; <sup>2</sup>Texas AgriLife Extension Service, Department of Horticultural Sciences, Dallas, TX 75252; <sup>3</sup>Rockwall County AgriLife Extension, Rockwall, TX 75087. (derald.harp@tamuc.edu)

- 5) **Integration of Nursery Production and Propagation Learning Experiences in a Multidisciplinary LID Landscape Project Yields Academic and Economic Benefits.** Michael A. Arnold<sup>1</sup>\*, Galen Newman<sup>2</sup>, Ming-Han Li<sup>2</sup>, Jun-Hyun Kim<sup>2</sup>, and Kung-Hui Chu<sup>3</sup>. <sup>1</sup>Texas A&M University, Department of Horticultural Sciences, 2133 TAMU, College Station, TX 77843-2133; <sup>2</sup>Department of Landscape Architecture and Urban Planning, 3137 TAMU, Scoates Hall 103, Texas A&M University, College Station, TX 77843-3137; <sup>3</sup>Zachry Department of Civil Engineering, 3136 TAMU, Texas A&M University, College Station, TX 77843-3136. (ma-arnold@tamu.edu)

- 6G) **Leaf Temperature, Photosynthesis, and Stomatal Conductance in Dark-Foliaged Crape Myrtles in North Texas.** Kevin Chretien\* and Derald A. Harp. School of Agriculture, Texas A&M University – Commerce, Commerce, TX 75429. (derald.harp@tamuc.edu)

- 7) **Effects of Foliar Compost Tea and Select Application Methods of Auxin on Rooting of Softwood Rose (*Rosa* ‘Old Blush’ Jacq.) cuttings.** Clarissa Gonzalez and Andrew R. King\*. Dept. Horticultural Sciences, Texas A&M University, College Station, TX 77843-2133. (aking@tamu.edu)

- 8) **Hardwood Cutting Propagation of ‘Pascagoula’ Crape Myrtle.** Patricia R. Knight\*, Scott A. Langlois, Eugene K. Blythe, J. Skylar Baldwin, Christine E. Coker, Gary R. Bachman, and James M. DelPrince. Coastal Research and Extension Center, Mississippi State University, Poplarville, MS 39470. (patricia.knight@msstate.edu)

- 9) **Trace Gas Emissions from a Sun and Shade Grown Ornamental Crop.** Anna-Marie Murphy<sup>1</sup>\*, Stephen A. Prior<sup>2</sup>, G. Brett Runion<sup>2</sup>, H. Allen Torbert<sup>2</sup>, and Jeff L. Sibley<sup>1</sup>. <sup>1</sup>101 Funchess Hall, Department of Horticulture, Auburn University, AL 36849, USDA-ARS National Soil Dynamics Laboratory; <sup>2</sup>411 South Donahue Drive, Auburn, AL 36832. (amurphy@auburn.edu)

- 10) **Wood Fiber as a Substrate Component in Vegetative Propagation of *Euphorbia pulcherrima*.** Anna-Marie Murphy\*, Glenn B. Fain, J. Raymond Kessler, and Dave Mitchell. 101 Funchess Hall, Department of Horticulture, Auburn University, AL 36849. (amurphy@auburn.edu)

#### Fruit Crops

- 11) **‘Gumbo’ Southern Highbush Blueberry.** Stephen J. Stringer\*, Arlen D. Draper, Donna A. Shaw, Blair J. Sampson, Hamidou F. Sakhanoko, Ebrahiem Babiker, and John J. Adamczyk, Jr. USDA-ARS Thad Cochran Southern Horticulture Laboratory, Poplarville, MS, 39466. (Stephen.Stringer@ars.usda.gov)

- 12UG) **An Efficient Micropropagation Method for Wild Blueberries (*Vaccinium* spp.) from the Southeastern U.S.** Diego Espinosa\* and Gerardo H. Nunez. Horticultural Sciences Department, University of Florida, Gainesville, FL 32611. (g.nunez@ufl.edu)

- 13) **Effects of Harvest Date and Select Auxin Concentrations on Callusing and Rooting of Hardwood Muscadine (*Vitis rotundifolia* Michx.) Cuttings.** Allison E. Bukowski, Justin J. Scheiner, and Andrew R. King\*. Dept. Horticultural Sciences, Texas A&M University, College Station, TX 77843-2133. (aking@tamu.edu)

- 14G) **Influence of maturity on physicochemical quality of Genomically Diverse Banana (*Musa* spp.) Cultivars from Southeastern United States.** Mahnaz Kargar<sup>1</sup>\*, Floyd M. Woods<sup>1</sup>, Marisa M. Wall<sup>2</sup>, E. Greg Fonsah<sup>3</sup>, J.



- Raymond Kessler<sup>1</sup>, Kalidas Shetty<sup>4</sup>, Ramesh B. Jeganathan<sup>5</sup> and Nicholas Larsen<sup>6</sup>. <sup>1</sup>Dept. of Horticulture, Auburn University, Auburn, AL 36849; <sup>2</sup>USDA-ARS, US Pacific Basin Agricultural Research Center, Hilo, HI 96720; <sup>3</sup>Dept. of Agricultural and Applied Economics, University of Georgia, Tifton, GA 31793; <sup>4</sup>Dept. of Plant Sciences, North Dakota State University, Fargo, ND 58108; <sup>5</sup>Dept. of Nutrition, Dietetics, & Hospitality Management, Auburn University, Auburn, AL 36849; <sup>6</sup>University of Florida, Everglades Research & Education Center, Belle Glade, FL 33430. (mzk0049@auburn.edu)
- 15G) Salt Exclusion and Alkaline Soil Tolerance of Common Muscadine and Rootstock Cultivars.** Daniel Hillin<sup>1\*</sup>, George R. McEachern<sup>1</sup>, Sam Feagley<sup>2</sup>, Andrew King<sup>1</sup>, and Justin Schiener<sup>1</sup>. <sup>1</sup>2133 TAMU, Department of Horticultural Sciences, Texas A&M University, College Station, TX 77843-2133; <sup>2</sup>2474 TAMU, Department of Soil and Crop Sciences, Texas A&M University, College Station, TX 77843-2474. (dannyh@tamu.edu)
- 16) Measuring Water Stress in Peach Trees: Soil Moisture Vs. Tree Water Movement.** Amanda Accampo\* and Juan Carlos Melgar, Department of Plant and Environmental Sciences, Clemson University, Clemson, SC 29634. (amyates@g.clemson.edu)
- 17) Fruit Firmness and Susceptibility to Splitting and Spotted-wing Drosophila on Different Grape Cultivars.** Amir Rezazadeh<sup>1</sup>, Eric T. Stafne<sup>1\*</sup>, and Blair J. Sampson<sup>2</sup>. <sup>1</sup>MSU Coastal Research and Extension Center, P.O. Box 193, Poplarville, MS 39470; <sup>2</sup>USDA-ARS Thad Cochran Southern Horticultural Laboratory, 810 Hwy 26 West, Poplarville, MS 39470. (eric.stafne@msstate.edu)
- 18UG) Using Mobile Application Canopeo© to Assess Cold Stress Damage in Coffee Seedlings (*Coffea arabica*).** Mary Dixon\* and Gerardo H. Nunez. Horticultural Sciences Department, University of Florida, Gainesville, FL 32611. (g.nunez@ufl.edu)
- 19) Optimizing Fertilization Rates for Young Peach Orchards in the Southeastern U.S.** Juan Carlos Melgar\*. Department of Plant and Environmental Sciences, Clemson University, Clemson, SC 29634. (jmelgar@clemson.edu)
- 20G) Size Controlling Rootstocks for Enhanced Sustainability of Apple Production in Alabama.** Enfeng Xu\*, Elina D. Coneva, J. Raymond Kessler, and Edgar L. Vinson. Department of Horticulture, Auburn University, Auburn, Alabama, AL 36849. (ezx0001@auburn.edu)
- 21 Do Strawberry Growers Meet Current Recommendations for Spring Plant Tissue Nutrient and Petiole NO<sub>3</sub> Concentrations in Arkansas?** Amanda McWhirt\* and Matthew Bean. 2301 S. University, Department of Horticulture, University of Arkansas Cooperative Extension Service, Little Rock, AR 72204. (amcwhirt@uaex.edu)
- Vegetable Crops**
- 22UG) Establishment of Bush Green Beans in the Virgin Islands.** Imhotep Charles\*, Jessica Ewer and Thomas W. Zimmerman. University of the Virgin Islands Agricultural Experiment Station, RR#1 Box 10,000, Kingshill VI 00850. (tzimmer@uvi.edu)
- 23) A Rapid Approach for Salt Tolerance Evaluation in Cowpea at Seedling Stage.** Waltram Ravelombola\*, Yuejin Weng, Jun Qin, and Ainong Shi. Department of Horticulture, University of Arkansas, Fayetteville, AR 72701, USA. (ashi@uark.edu)
- 24G) Thirst Quenching: Improving tomato water-use efficiency through grafting.** David H Suchoff<sup>1\*</sup>, Christopher C. Gunter<sup>1</sup>, Matthew D. Kleinhenz<sup>2</sup>, Jonathan R. Schultheis<sup>1</sup>, and Frank J. Louws<sup>3,4</sup>. <sup>1</sup>Department of Horticultural Science, NC State University, Raleigh, NC 27695; <sup>2</sup>Department of Horticulture and Crop Science, The Ohio State University, Wooster, OH 44691; <sup>3</sup>Department of Entomology and Plant Pathology, NC State University, Raleigh, NC 27695; <sup>4</sup>NSF Center for Integrated Pest Management, NC State University, Raleigh, NC 27695. (dsuchoff@gmail.com)
- 25G) Interactive Effects of Supplemental UV-B Radiation and Light Intensity on the Growth and Secondary Metabolites Accumulation in Sweet Basil.** Haijie Dou<sup>1\*</sup>, Genhua Niu<sup>2</sup>, and Mengmeng Gu<sup>3</sup>. <sup>1</sup>Department of Horticultural Sciences, Texas A&M University, College Station, TX

- 77843; <sup>2</sup>Texas A&M AgriLife Research and Extension Center at El Paso, 1380 A&M Circle, El Paso, TX 79927; <sup>3</sup>Department of Horticultural Sciences, Texas A&M AgriLife Extension Service, College Station, TX 77843. (hajjiedou@tamu.edu)
- 26) **Evaluation of Commercially Available Varieties of Yellow Squash and Zucchini for Tolerance to *Cucurbit* Leaf Crumple Virus in Georgia.** Timothy Coolong<sup>1\*</sup>, Bhabesh Dutta<sup>2</sup>, Alton Sparks<sup>3</sup>, and Rajagopalbabu Srinivasan<sup>4</sup>. <sup>1</sup>Department of Horticulture, University of Georgia, 2360 Rainwater Road, Tifton, GA 31793; <sup>2</sup>Department of Plant Pathology, University of Georgia, 2360 Rainwater Road, Tifton, GA 31793; <sup>3</sup>Department of Entomology, University of Georgia, 2360 Rainwater Road, Tifton, GA 31793; <sup>4</sup>Department of Entomology, University of Georgia, 1109 Experiment St., Griffin, GA. (tcoolong@uga.edu)
- 27) **Evaluation of spinach (*Spinacia oleracea* L.) germplasm for use in hydroponic production.** Torben Vanhuffel, Hannah Quick\* and Michael R. Evans. Department of Horticulture, University of Arkansas System Division of Agriculture, Fayetteville, AR 72701. (mrevans@uark.edu)
- 28UG) **Acclimatizing and Establishment of Sugarcane in the Virgin Islands.** Shamoy K. Bideau\*, Henry Harris and Thomas W. Zimmerman. University of the Virgin Islands Agricultural Experiment Station, RR#1 Box 10,000, Kingshill VI 00850. (tzimmer@uvi.edu)
- 29G) **Short day onion (*Allium cepa*) germplasm evaluation for agronomic and disease tolerance in south Texas.** Diwas Silwal\*, Subas Malla, and Manzeal Khanal. Department of Horticultural Sciences, Texas A&M AgriLife Research and Extension Center, Uvalde, TX 78801. (subas.malla@ag.tamu.edu)
- 30) **Exogenous Applications of Amino Acids Affect the Growth and Concentration of Chlorophyll, Amino acids and Sugars of Jalapeño Pepper (*Capsicum annuum* L.) Fruit.** Víctor García-Gaytán<sup>1</sup>, Juan C. Díaz-Pérez<sup>2\*</sup>, Jesus Bautista<sup>2</sup>, Gunawati Gunawani<sup>2</sup>, Anthony Bateman<sup>2</sup>, and Fernando Carlos Gómez-Merino<sup>3</sup>. <sup>1</sup>Colegio de Postgraduados, Campus Montecillo, Texcoco, Edo. de México 56230, México; <sup>2</sup>Department of Horticulture, University of Georgia, Tifton, GA 31793-5766; <sup>3</sup>Colegio de Postgraduados, Campus Córdoba, Veracruz 94946, México. (jcdiaz@uga.edu)
- 31) **Ginger Growth Affected by Shading Treatments in High Tunnel.** Guochen Yang\*, Sanjun Gu, Cindy Lu, Julia Robinson, John Kimes, and William Lashley. College of Agriculture and Environmental Sciences, North Carolina A&T State University, Greensboro, NC 27411. (yangg@ncat.edu).
- 32) **Improving Peppers for Fruit Quality Traits: Milestones in a Project Designed to Facilitate Active Learning in Crop Breeding.** Bala Rathinasabapathi\*. Horticultural Sciences Department, University of Florida, Gainesville, FL 32611-0690. (brath@ufl.edu)
- 33G) **Evaluation of Drought Tolerance in Cowpea at Seedling Stage.** Waltram Ravelombola, Jun Qin, Yuejin Weng, Gehendra Bhattarai, and Ainong Shi. Department of Horticulture, University of Arkansas, Fayetteville, AR 72701, USA. (ashi@uark.edu)
- 34G) **Germination-trait selection for drought tolerance in *Solanum pennellii* introgression lines.** Flavia M. Alves<sup>1\*</sup>, Herika P. Pessoa<sup>1</sup>, Mariane G. Ferreira<sup>1</sup>, Igor O. Pontelo<sup>1</sup>, Felipe de Oliveira Dias<sup>1</sup>, Daniel I. Leskovar<sup>2</sup>, Laércio J. da Silva<sup>1</sup>, Carlos Nick<sup>1</sup>. <sup>1</sup>Departamento de Fitotecnia, Universidade Federal de Viçosa, Campus Viçosa, Viçosa, MG 36570-000, Brazil; <sup>2</sup>Texas A&M AgriLife Research, Texas A&M University, Uvalde, TX 78801. (flaviamarialves@gmail.com)
- 35) **Mapping Quantitative Trait Loci for Iron Chlorosis Tolerance in Cowpea (*Vigna unguiculata*).** Manzeal Khanal<sup>1</sup>, Subas Malla<sup>1\*</sup>, Homa Zarghami<sup>2</sup>, Dirk Hays<sup>2</sup>, B.B. Singh<sup>2</sup> and Hongbin Zhang<sup>2</sup>. <sup>1</sup>Department of Horticultural Sciences, Texas A&M AgriLife Research and Extension Center, Uvalde, TX 78801; <sup>2</sup>Department of Soil and Crop Sciences, Texas A&M University, College Station, TX 77843. (subas.malla@ag.tamu.edu)



- 36UG) Creating a Unique Tomato Plant by Grafting Multiple Scions onto One Rootstock.** Veronica Laux\* and Xin Zhao. Horticultural Sciences Department, University of Florida, Gainesville, FL 32611. (zxin@ufl.edu)
- 37) Phenomics of Cowpea at Seedling Stage under Salt Stress.** Waltram Ravelombola\*, Yuejin Weng, Jun Qin, and Ainong Shi. Department of Horticulture, 316 PTSC, University of Arkansas, Fayetteville, AR 72701, USA. (ashi@uark.edu)
- 38G) Application of Genomic Selection on Anthracnose Resistance in Texas A&M's Watermelon Breeding Program.** Edgar Correa<sup>1\*</sup>, Subas Malla<sup>2</sup>, Manzeal Khanal<sup>2</sup>, Kevin Crosby<sup>1</sup>, and Carlos Avila<sup>3</sup>. <sup>1</sup>Dept. of Horticulture, Texas A&M University, College Station, TX 77843; <sup>2</sup>Texas A&M AgriLife Research & Extension Center, Uvalde, TX 78801; <sup>3</sup>Texas A&M AgriLife Research & Extension Center, Weslaco, TX 78596. (edxcorr@tamu.edu)
- 39G) Assessment of *Cucurbita* Rootstocks for Improving Tolerance of Grafted Seedless Watermelon Seedlings to Chilling Stress.** Sylvia Willis\* and Xin Zhao. Horticultural Sciences Department, University of Florida, Gainesville, FL 32611. (zxin@ufl.edu)
- 40) Phytotoxicity of Mustard Meal Applications on Weeds and Squash (*Cucurbita pepo* L.) Establishment.** Charles L. Webber III<sup>1\*</sup>, Paul M. White Jr. <sup>1</sup>, Rick A. Boydston<sup>2</sup>, and James W. Shrefler<sup>3</sup>. <sup>1</sup>USDA-ARS Sugarcane Research Unit, 5883 USDA Rd., Houma, LA 70360; <sup>2</sup>USDA-ARS Grain Legume Genetics Physiology Research, 24106 N. Bunn Rd., Prosser, WA 99350; <sup>3</sup>Oklahoma Cooperative Extension, P.O. Box 749, Durant, OK 74702. (Chuck.Webber@ars.usda.gov)
- 41) Screening diverse potato germplasm for resistance to Zebra Chip disease.** Samuel Vigue<sup>1</sup> \*, M. Isabel Vales<sup>1</sup>, Cecilia Tamborindeguy<sup>2</sup>, J.R. Creighton Miller<sup>1</sup>, Douglas Scheuring<sup>1</sup>, Angel Chappell<sup>1</sup>. <sup>1</sup>Department of Horticultural Sciences, Texas A&M University, College Station, TX 77843; <sup>2</sup>Department of Entomology, Texas A&M University, College Station, TX 77843. (svigue@tamu.edu)
- 42) Spring and fall production of Brussels sprouts under rowcover in Virginia.** Tej Acharya, Greg Welbaum, Mark Reiter, and Ramón Arancibia\*. School of Plant and Environmental Sciences, Virginia Tech, Blacksburg, VA 24061. (raran@vt.edu)
- 43) Sugarcane Bagasse Biochar as an Amendment to a Soilless Growing Media for Squash Seedling Production.** Charles L. Webber III<sup>1\*</sup>, Paul M. White Jr. <sup>1</sup>, Douglas J. Spaunhorst<sup>1</sup>, Isabel M. Lima<sup>2</sup>, and Eric C. Petrie<sup>1</sup>. <sup>1</sup>USDA-ARS Sugarcane Research Unit, 5883 USDA Rd., Houma, LA 70360; <sup>2</sup>USDA-ARS Southern Regional Research Center, 1100 Robert E. Lee Blvd., New Orleans, LA 70124. (Chuck.Webber@ars.usda.gov)
- 44G) Effect of Chemical and Mechanical Potato Vine Desiccation on Tuber Yield, Skin Removal and Post-harvest Quality.** Fernanda Souza Krupek\*, Peter J. Dittmar, Lincoln Zotarelli, and Steve A. Sargent. Horticultural Sciences Department, University of Florida, Gainesville, FL 32611. (krupek@ufl.edu)
- 45G) Supplemental Daily Light Integrals Influence Carotenoid Concentrations in Hydroponically Grown Genovese Pesto Basil.** Hunter A. Hammock\*, Dean A. Kopsell, and Carl E. Sams. Department of Plant Sciences, The University of Tennessee, Knoxville, TN, 37996. (hhammoc1@vols.utk.edu)
- 46) Sweetpotato Variety Evaluation in Georgia.** Timothy Coolong<sup>1\*</sup>, George Boyhan<sup>2</sup>, Cecilia McGregor<sup>2</sup>, Cliff Riner<sup>3</sup>, Jason Edenfield<sup>4</sup>, Aubrey Shirley<sup>5</sup>, Chris Tyson<sup>5</sup>, and Chris Earls<sup>6</sup>. <sup>1</sup>Department of Horticulture, University of Georgia, 2360 Rainwater Road, Tifton, GA 31793; <sup>2</sup>Department of Horticulture, University of Georgia, 1111 Miller Plant Sciences, Athens, GA 30602; <sup>3</sup>Vidalia Onion and Vegetable Research Center, 8163 Hwy 178, Lyons, GA 30436; <sup>4</sup>Toombs County Extension Service, 200 Courthouse Square, Lyons, GA 30436; <sup>5</sup>Tattnall County Extension Service, 200 S. Main St., Reidsville, GA 30453; <sup>6</sup>Candler County Extension Service, 1075 E. Hiawatha St., Metter, GA 30439. (tcoolong@uga.edu)
- 47) Watermelon Germplasm Evaluation for Yield and Its Components in South Texas.**

Edgar Correa<sup>1\*</sup>, Subas Malla<sup>2</sup>, Manzeal Khanal<sup>2</sup>, Kevin Crosby<sup>1</sup>, and Carlos Avila<sup>3</sup>. <sup>1</sup>Dept. of Horticulture, Texas A&M University, College Station, TX 77843; <sup>2</sup>Texas A&M AgriLife Research & Extension Center, Uvalde, TX 78801; <sup>3</sup>Texas A&M AgriLife Research & Extension Center, Weslaco, TX 78596. (edcorr@tamu.edu)

- 48) **Grape Tomato Production and Consumer Perceptions.** Christine E.H. Coker<sup>1\*</sup> and Patti Coggins<sup>2</sup>. <sup>1</sup>Mississippi State University, Coastal Research and Extension Center, 1815 Pops Ferry Road, Biloxi, MS 39532; <sup>2</sup>Alabama A&M University, Department of Food and Animal Sciences, Normal, AL 35762. (christine.coker@msstate.edu)

#### Post-Harvest

- 49G) **Evaluation of Red Drupelet Reversion in Blackberries using High-Throughput Digital Image Analysis.** Bethany M. Sebesta<sup>1\*</sup>, Margaret L. Worthington<sup>1</sup>, Renee Threlfall<sup>2</sup>, and John R. Clark<sup>1</sup>. 1316 Plant Science, Department of Horticulture, University of Arkansas, Fayetteville, AR 72701; <sup>2</sup>2650 N. Young Avenue, Food Science Department, University of Arkansas, Fayetteville, AR 72704. (bsebesta@uark.edu)

- 50UG) **Impact of Sweetness and Sourness on Sensory of Fresh-Market Blackberries.** Aubrey N. Dunteman<sup>1\*</sup>, Renee T. Threlfall<sup>1</sup>, and John R. Clark<sup>2</sup>. <sup>1</sup>2650 N. Young Avenue, Food Science Department, University of Arkansas, Fayetteville, AR 72704; <sup>2</sup>316 Plant Science, Department of Horticulture, University of Arkansas, Fayetteville, AR 72701. (anduntem@email.uark.edu)

- 51) **Effects of High Tunnel Production on Postharvest Marketability of Arkansas Table Grapes.** Molly Felts<sup>1\*</sup>, Renee T. Threlfall<sup>1</sup>, John R. Clark<sup>2</sup>, and M. Elena Garcia<sup>2</sup>. <sup>1</sup>2650 N. Young Avenue, Food Science Department, University of Arkansas, Fayetteville, AR 72704; <sup>2</sup>316 Plant Science, Department of Horticulture, University of Arkansas, Fayetteville, AR 72701. (mretherf@email.uark.edu)

- 52) **Flavor Volatiles in Southern Highbush and Rabbiteye Blueberry Varieties.** Rachel A. Itle<sup>1\*</sup>, Koushik Adhahari<sup>2</sup>, and D. Scott

NeSmith<sup>1</sup>. <sup>1</sup>Department of Horticulture, University of Georgia, 1109 Experiment Street, Griffin, GA 30223; <sup>2</sup>Department of Food Science & Technology, University of Georgia, 1109 Experiment Street, Griffin, GA 30223. (ritle@uga.edu)

- 53) **Black Raspberry in North Carolina: Shelf life and composition.** P. Perkins-Veazie<sup>1\*</sup>, G. Fernandez<sup>2</sup>, and G. Ma<sup>1</sup>. <sup>1</sup>Plants for Human Health Institute, Department of Horticultural Science, North Carolina State University, Kannapolis NC 28081; <sup>2</sup>Department of Horticultural Science, NCSU, Raleigh, NC 27695. (penelope\_perkins@ncsu.edu)

- 54UG) **Impact of Flesh-type on Ripeness Attributes of Peaches and Nectarines during Postharvest Storage.** Mary C. Siebenmorgen<sup>1\*</sup>, Renee T. Threlfall<sup>1</sup>, and Margaret L. Worthington<sup>2</sup>. <sup>1</sup>2650 N. Young Avenue, Food Science Department, University of Arkansas, Fayetteville, AR 72704; <sup>2</sup>316 Plant Science, Department of Horticulture, University of Arkansas, Fayetteville, AR 72701. (mcsieben@email.uark.edu)

- 55G) **Postharvest Marketability of Arkansas Fresh-market Blackberries Harvested at 7:00AM and 12:00PM.** Molly Felts<sup>1\*</sup>, Renee T. Threlfall<sup>1</sup>, and John R. Clark<sup>2</sup>. <sup>1</sup>2650 N. Young Avenue, Food Science Department, University of Arkansas, Fayetteville, AR 72704; <sup>2</sup>316 Plant Science, Department of Horticulture, University of Arkansas, Fayetteville, AR 72701. (mretherf@email.uark.edu)

#### Cross-Commodity

- 56G) **Nutrient Uptake and Growth Analysis of *Actaea racemosa* (L.) Grown under Shade in a Greenhouse.** Julia Robinson\*, Guochen Yang, Sanjun Gu, Cindy Lu, and John Kimes. College of Agriculture and Environmental Sciences, North Carolina A&T State University, Greensboro, NC 27411. (jrobinson@aggies.ncat.edu).

- 57) **Allelopathic Impact of Sugarcane Field Residue and Root Leachates on Weed Seed Germination.** Charles L. Webber III<sup>1\*</sup>, Paul M. White Jr.<sup>1</sup>, Derek S. Landrum<sup>2</sup>, Douglas J. Spaunhorst<sup>1</sup>, Darcey G. Wayment<sup>3</sup>, and Emmanuel Dorvil<sup>4</sup>. <sup>1</sup>USDA-ARS Sugarcane Research Unit, 5883 USDA Rd., Houma, LA 70360; <sup>2</sup>LSU AgCenter, Orleans Parish, 1300

Perdido St., New Orleans, LA 70112;  
<sup>3</sup>Nicholls State Univ., 901 East 1st St.,  
 Thibodaux, LA 70301; <sup>4</sup>Central State  
 University, 1400 Brush Row Rd., Wilberforce,  
 OH 45384. (Chuck.Webber@ars.usda.gov)

- 58G) **Efficacy of saponin mitigation of *E. coli* under nonsterile and sterile conditions.** Nathan J. Eylands<sup>1\*</sup>, Angela Shaw<sup>2</sup>, Michael R. Evans<sup>1</sup>. <sup>1</sup>316 Plant Science, Department of Horticulture, University of Arkansas, Fayetteville, AR 72701; <sup>2</sup>2313 Food Sciences Building, Department of Food Science and Human Nutrition, Iowa State University, Ames, IA 50011. (njeylan@uark.edu)
- 59) **The Effect of Shade Cloth Color on Greenhouse Cooling Efficiency.** Jeremy M. Pickens\*, Daniel E. Wells, J. Raymond Kessler and Jeff L. Sibley, Department of Horticulture, 101 Funchess Hall, Auburn University, AL 36849 (pickej@auburn.edu)

## Sunday, February 4, 2018

### ACB BUSINESS MEETING

**Room:** Grand Ballroom Section 6  
**Time:** 9:00 – 10:45  
**Presiding:** Preston Smith, President

### ANNUAL BUSINESS MEETING AND AWARDS PROGRAM

**Room:** Grand Ballroom Section 6  
**Time:** 11:00 – 12:30  
**Presiding:** Tim Davis, President

### POSTER VIEWING & TAKE-DOWN

**Room:** Conference Center A  
**Presiding:** Amanda McWhirt, Chair  
**Abstracts:** To publish abstract in *HortScience*, see instructions at end of program. Submit on disk at meeting or email to Chair: amcwhirt@uaex.edu

**Poster Viewing:** Sunday 8:00-10:45  
**Poster Take-down:** Sunday, 1:00 – 3:00

## SECTION TITLES

### VEGETABLE CROPS SECTION

**Room:** City Terrace 9  
**Presiding:** Rick Snyder, Chair  
**Abstracts:** To publish abstract in *HortScience*, see instructions at end of program. Submit on disk at meeting or email to Chair: Rick.Snyder@msstate.edu

**8:00 Preharvest and postharvest effects on internal necrosis incidence and severity in 'Covington' sweetpotato.** Fernando Montero de Espinosa\* and Jonathan R. Schultheis. <sup>1</sup>North Carolina State University, Department of Horticultural Science, 2721 Founders Drive, Raleigh, NC 27695-7609 (fmonter@ncsu.edu)

**8:15 Greenhouse Environment and Electroconductivity Impacts Lettuce (*Lactuca sativa* L.) Biomass and Phenolic Content.** William L. Sublett\* and T. Casey Barickman, Department of Plant and Soil Science, Mississippi State University, North Mississippi Research and Extension Center, Verona, MS 38879. (t.c.barickman@msstate.edu)

**8:30 Yield Performance of Organic Vegetables Grown in 'Drip Organics' Vertigro System.** Dilip Nandwani\*, Sochinwechi Nwosisi and Saidullah Chowdhary. Department of Agriculture and Environmental Sciences, College of Agriculture, Tennessee State University, Nashville, TN 37209 (dnandwan@tnstate.edu)

**8:45 Effects of Nutrient Solution Temperature on Growth of Greenhouse-Grown Lettuce (*Lactuca sativa* L.).** Daniel E. Wells\* and Jeremy M. Pickens. 101 Funchess Hall, Department of Horticulture, Auburn University, Auburn, AL 36849. (wellsda@auburn.edu)

**9:00 Break**

**9:15 Impact of different wavelengths of blue light from LEDs on biomass and water soluble carbohydrates in 'Red Sails' lettuce (*Lactuca sativa*) microgreens.** Dean A. Kopsell\*, Carl E. Sams, and Rosalie M. Metallo. Plant Sciences Department, The University of Tennessee, Knoxville, TN 37996. (dean.kopsell@ufl.edu)

- 9:30 Overwinter Production of Direct Seeded Salad and Green Mixes in High Tunnels in Hardiness Zone 7 of North Carolina.** Sanjun Gu\*, John Beck and John Kimes. Cooperative Extension, North Carolina Agricultural and Technical State University. Greensboro, NC 27420. (sgu@ncat.edu)
- 9:45 Overwinter Production of Transplanted Kale and Pac Choi in High Tunnels in Hardiness Zone 7 of North Carolina.** Sanjun Gu\*, John Beck and John Kimes. Cooperative Extension, North Carolina Agricultural and Technical State University. Greensboro, NC 27420. (sgu@ncat.edu)

## FLORICULTURE, ORNAMENALS AND TURF SECTION

**Room:** City Terrace 10

**Presiding:** Thayne Montague, Chair

**Abstracts:** To publish abstract in *HortScience*, see instructions at end of program. Submit on disk at meeting or email to Chair: thayne.montague@ttu.edu

- 8:00 Container Trial of 150 Azalea (*Rhododendron* spp.) Cultivars to Assess Insect Tolerance and Bloom Characteristics in a Production Environment.** Matthew Chappell<sup>1</sup>\*, Geoffrey M. Weaver<sup>1</sup>, Brian Jernigan<sup>2</sup>, and Mike McCorkle<sup>2</sup>. <sup>1</sup>University of Georgia, 1111 Miller Plant Science Building, Athens, GA, 30602, <sup>2</sup>Center for Applied Nursery Research, 4904 Luckey's Bridge Rd SE, Dearing, GA, 30808. (hortprod@uga.edu)
- 8:15 Louisiana Consumer Demands and Willingness to Pay for US-grown Tea Products.** Yan Chen<sup>1</sup>, Kathryn Fontenot<sup>2</sup>, Jeff Beasley<sup>2</sup>, and Jeff Kuehny<sup>3</sup>. <sup>1</sup>LSU AgCenter Hammond Research Station, <sup>2</sup>School of Plant, Environment, and Soil Sciences, <sup>3</sup>Burden Botanic Gardens. (yachen@agcenter.lsu.edu)
- 8:30 Preventive Treatments for Managing Crape Myrtle Bark Scale Infestation in Container Production of 'White Natchez' Crape Myrtle.** Yan Chen<sup>1\*</sup>, Erfan Vafaie<sup>2</sup>, Mike Merchant<sup>3</sup>, and Mengmeng Gu<sup>4</sup>. <sup>1</sup>LSU AgCenter Hammond Research Station, <sup>2</sup>Texas A&M AgriLife Research and Extension Center at Overton, <sup>3</sup>Texas A&M AgriLife Research and Extension Center at Dallas,

<sup>4</sup>Texas A&M AgriLife Research and Extension, Department of Horticultural Science. (yachen@agcenter.lsu.edu)

- 8:45 Modeling Carbon Footprint and Variable Costs for Greenhouse Production of 11.4-cm Begonia.** Dewayne L. Ingram\*, Charles R. Hall and Joshua Knight, Department of Horticulture, University of Kentucky, Lexington, KY 4.546-0091 and Department of Horticultural Sciences, Texas A&M University, College Station, TX 77843-2133. (dingram@uky.edu)

**9:00 Break**

- 9:15 American Ginseng (*Panax quinquefolius* L.) establishment in the Ozark Highlands in Northwest Arkansas.** Jordan D. Slater\* and Garry V. McDonald. 316 Plant Science, Department of Horticulture, University of Arkansas, Fayetteville, AR 72701. (gmcDonald@uark.edu)

- 9:30 Pot Color Effects on Root Zone Temperature and Growth of Arborvitae (*Thuja occidentalis* 'Green Giant').** Anthony L. Witcher<sup>1</sup> and Jeremy M. Pickens<sup>2\*</sup>. <sup>1</sup>Tennessee State University, McMinnville, TN 37110, <sup>2</sup>Auburn University, PO Box 8276, Mobile, AL 36689. (jeremy.pickens@auburn.edu)

- 9:45 Top heat application promotes early flowering in three azalea cultivars.** Geoffrey Weaver<sup>1\*</sup>, Mike McCorkle<sup>2</sup>, Brian Jernigan<sup>2</sup>, and Matthew Chappell<sup>1</sup>. <sup>1</sup>1324 Hoke Smith, Department of Horticulture, The University of Georgia, Athens, GA 30602, <sup>2</sup>Center for Applied Nursery Research, 4904 Luckey's Bridge Rd. SE, Dearing, GA 30808. (gmweaver@uga.edu)

- 10:00 Nitrogen speciation in two constructed wetlands treating nursery irrigation runoff.** Sarah A. White. Department of Plant and Environmental Sciences, Clemson University, E-143 Poole Ag Center, Clemson, SC 29634. (swhite4@clemson.edu)

## FRUIT CROPS SECTION

**Room:** City Terrace 8

**Presiding:** Erick Smith, Chair

**Abstracts:** To publish abstract in *HortScience*, see instructions at end of program. Submit

on disk at meeting or email to Chair:  
ericks@uga.edu

- 8:00 Kiwifruit Evaluation in Texas.** David Creech<sup>1\*</sup>, and Tim Hartmann<sup>2</sup>, <sup>1</sup>SFA Gardens, 2900 Raguet St., Stephen F. Austin State University, Nacogdoches, TX 75962, <sup>2</sup>Department of Horticultural Sciences, Texas A & M University, College Station, Texas 77843. (dcreech@sfasu.edu)
- 8:15 A High-Throughput SNP Genotyping Platform for Marker-Assisted Breeding in Strawberry (*Fragaria ×ananassa*).** Seonghee Lee\*, Young-Hee Noh, Jozer Mangandi, Jack Roach, Sujeet Verma and Vance M. Whitaker., Department of Horticultural Science, IFAS Gulf Coast Research and Education Center, University of Florida, 14625 County Road 672, Wimuuama, FL 33598. (seonghee105@ufl.edu)
- 8:30 Genetic control of berry color in muscadine grapes (*Vitis rotundifolia*).** Margaret Worthington\*, Aruna Varanasi, Jennifer Lewter, and John R. Clark. 316 Plant Science, Department of Horticulture, University of Arkansas, Fayetteville, AR 72701. (mlworthi@uark.edu)
- 8:45 A new white nectarine release from the University of Arkansas fruit breeding program.** Margaret Worthington\* and John R. Clark. 316 Plant Science, Department of Horticulture, University of Arkansas, Fayetteville, AR 72701. (mlworthi@uark.edu)
- 9:00 Understanding Armillaria Root Rot Tolerance/Resistance in Prunus.** Ksenija Gasic\*, Goran Barac, Chris Saski, Guido Schnabel and Gregory Reighard, Clemson University, Dep. Plant and Environmental Science, Clemson, SC. (kgasic@clemson.edu)
- 9:15 Break**
- 9:30 Using an Online Survey to Characterize Consumer Opinions of Fresh-market Blackberries.** Renee T. Threlfall<sup>1\*</sup>, Aubrey N. Dunteman<sup>1</sup>, and John R. Clark<sup>2</sup>, <sup>1</sup>2650 N. Young Avenue, Food Science Department, University of Arkansas, Fayetteville, AR 72704, <sup>2</sup>316 Plant Science, Department of Horticulture, University of Arkansas, Fayetteville, AR 72701. (rthrelf@uark.edu)
- 9:45 Effect of Warm Temperature Interruption on Winter Chilling Accumulation and**

**Evaluation of Kiwifruit (*Actinidia chinensis* Planch. and *A. deliciosa* A. Chev.) Performance on Alkaline Soils.** Tim Hartmann<sup>1\*</sup>, David Creech<sup>2</sup>, Larry Stein<sup>3</sup>, Fred Davies<sup>1</sup>, Sam Feagley<sup>4</sup>, James Spiers<sup>5</sup>, and Justin Scheiner<sup>1</sup> <sup>1</sup>Department of Horticultural Sciences, Texas A & M University, College Station, Texas 77843 <sup>2</sup>SFA Gardens, Stephen F. Austin State University, Nacogdoches, TX 75962, <sup>3</sup>Department of Horticultural Sciences, Texas A&M University, Uvalde, TX 78802, <sup>4</sup>Department of Soil and Crop Sciences, Texas A&M University, College Station, TX 77843, <sup>5</sup>Department of Horticulture, Auburn University, Auburn, AL 36849 (t-hartmann@tamu.edu)

- 10:00 Evaluation of Recently Released Strawberry Varieties and Preliminary Results Regarding their Responses to Varying Rates of NO<sub>3</sub> Fertilizer in High Tunnel and Field Production Systems in the Mid-South.** Amanda McWhirt<sup>1\*</sup> and Jackie Lee<sup>1</sup>, <sup>1</sup> 2301 S. University, Department of Horticulture, University of Arkansas Cooperative Extension Service, Little Rock, AR 72204. (amcwhirt@uaex.edu)
- 10:15 Impact of Rootstock on Growth and Fruit Composition of ‘Blanc Du Bois’ Grapes.** Justin J. Scheiner<sup>1\*</sup> and Jim Kamas<sup>2</sup>, Department of Horticultural Sciences, <sup>1</sup>Texas A&M AgriLife Extension Service, HSF, 2134 TAMU, College Station, TX 77843 and <sup>2</sup>Viticulture and Fruit Lab, 259 Business Ct., Fredericksburg, TX 78624. (jscheiner@tamu.edu)
- 10:30 Seasonal pattern of leaf nutrients in three southern highbush blueberry cultivars under conventional commercial production in South Georgia.** Erick D. Smith\*. Department of Horticulture Tifton Campus, The University of Georgia, Tifton, GA 31793-5766 (ericks@uga.edu)

## POSTHARVEST AND BIOTECHNOLOGY SECTION

**Room:** Boardroom 2

**Presiding:** Ainong Shi, Chair

**Abstracts:** To publish abstract in *HortScience*, see instructions at end of program. Submit

on disk at meeting or email to Chair:  
ashi@uark.edu

**8:00 Genetic relatedness among squash accessions varying in oil, protein and fatty acid composition.** Geoffrey Meru<sup>1\*</sup>, Yuqing Fu<sup>1</sup>, Dayana Leyva<sup>1</sup>, Paul Sarnoski<sup>2</sup> and Yavuz Yagiz<sup>2</sup>. <sup>1</sup>Horticultural Sciences Department and Tropical Research and Education Center, University of Florida, 18905 SW 280th St., Homestead, FL 33031, <sup>2</sup>Department of Food Science and Human Nutrition, University of Florida, 572 Newell Dr.

**8:15 Quality and composition of night-harvested blackberries...**<sup>1</sup>Perkins-Veazie, P., 2G. Fernandez, G. Ma. <sup>1</sup>PHHI, Department of Horticultural Science, NCSU, Kannapolis NC; <sup>2</sup>Department of Horticultural Science, NCSU, Raleigh, NC.

**8:30 Butternut squash in the south: postharvest quality after curing.** <sup>1</sup>Perkins-Veazie, P., <sup>2</sup>T. Birdsell, <sup>3</sup>J. Schultheis, <sup>1</sup>G. Ma. <sup>1</sup>PHHI, Department of Horticultural Science, NCSU, Kannapolis NC; <sup>2</sup>NC Cooperative Extension Service, Jefferson, NC; <sup>3</sup>Department of Horticultural Science, NCSU, Raleigh, NC.

**8:45 Enzymatic Browning of Six Banana (*Musa* spp.) Cultivars during Ripening in the Southeastern United States.** Mahnaz Kargar<sup>1\*</sup>, Floyd M. Woods<sup>1</sup>, Marisa M. Wall<sup>2</sup>, E. Greg Fonsah<sup>3</sup>, J. Raymond Kessler<sup>1</sup>, Kalidas Shetty<sup>4</sup>, Ramesh B. Jeganathan<sup>5</sup> and Nicholas Larsen<sup>6</sup>. <sup>1</sup>Dept. of Horticulture, Auburn University, Auburn, AL 36849; <sup>2</sup>USDA-ARS, US Pacific Basin Agricultural Research Center, Hilo, HI 96720; <sup>3</sup>Dept. of Agricultural and Applied Economics, University of Georgia, Tifton, GA 31793; <sup>4</sup>Dept. of Plant Sciences, North Dakota State University, Fargo, ND 58108; <sup>5</sup>Dept. of Nutrition, Dietetics, & Hospitality Management, Auburn University, Auburn, AL 36849; <sup>6</sup>University of Florida, Everglades Research & Education Center, Belle Glade, FL 33430. (mzk0049@auburn.edu).

**9:00 Genetic diversity among accessions of *Cucurbita pepo* resistant to *Phytophthora crown rot*.** Vincent M Njung'e\*, Pamela Moon and Geoffrey Meru, Horticultural Sciences Department and Tropical Research and Education Center,

University of Florida, 18905 SW 280th St., Homestead, FL 33031. (michaelvn@ufl.edu).

**9:15 Break**

**9:30 Genetic Diversity and Genome-wide Association Study in Spinach.** Ainong Shi (1), Jun Qin(1), Yuejin Weng(1), Gehendra Bhattarai(1), Waltram Ravelombola(1), Bazgha Zia(1), Wei Zhou(1), Jim Correll(2), and Beiquan Mou(3). (1) Department of Horticulture, University of Arkansas, Fayetteville, AR 72701, USA; (2) Department of Plant Pathology, University of Arkansas, Fayetteville, AR 72701, USA; and (3) Crop Improvement and Protection Research Unit, US Department of Agriculture, Agricultural Research Service (USDA-ARS), 1636 E. Alisal Street, Salinas, CA 93905, USA.

**9:45 A SNP-Based Association Analysis for Plant Growth Habit in Worldwide Cowpea (*Vigna unguiculata* (L.) Walp) Germplasm.** Waltram Ravelombola (1), Jun Qin (1), Ainong Shi (1), Yuejin Weng (1), Gehendra Bhattarai (1), Lingdi Dong, and J. Bradley Morris. (1) Department of Horticulture, 316 PTSC, University of Arkansas, Fayetteville, AR 72701, USA, and (2) Plant Genetic Resources Conservation Unit, USDA, 1109 Experiment St., Griffin, GA 30223, USA.

**10:00 Study on Photoperiodism in Spinach (*Spinacia oleracea* L.).** Yuejin Weng, Jun Qin, Gehendra Bhattarai, Waltram Ravelombola, Bazgha Zia, Wei Zhou, and Ainong Shi, Department of Horticulture, University of Arkansas, Fayetteville, AR 72701, USA.

**10:15 Enzymatic Browning of Genomically Diverse Banana (*Musa* spp.) Cultivars During Postharvest Storage.** Mahnaz Kargar<sup>1\*</sup>, Floyd M. Woods<sup>1</sup>, Marisa M. Wall<sup>2</sup>, E. Greg Fonsah<sup>3</sup>, J. Raymond Kessler<sup>1</sup>, Kalidas Shetty<sup>4</sup>, Ramesh B. Jeganathan<sup>5</sup> and Nicholas Larsen<sup>6</sup>. <sup>1</sup>Dept. of Horticulture, Auburn University, Auburn, AL 36849; <sup>2</sup>USDA-ARS, US Pacific Basin Agricultural Research Center, Hilo, HI 96720; <sup>3</sup>Dept. of Agricultural and Applied Economics, University of Georgia, Tifton, GA 31793; <sup>4</sup>Dept. of Plant Sciences, North Dakota State University, Fargo, ND 58108; <sup>5</sup>Dept. of Nutrition, Dietetics, & Hospitality Management, Auburn University, Auburn, AL 36849; <sup>6</sup>University of Florida, Everglades



Research & Education Center, Belle Glade,  
FL 33430. (mzk0049@auburn.edu).

## ANNUAL BUSINESS MEETING AND AWARDS PROGRAM

**Room:** Grand Ballroom Section 6

**Time:** 11:00 – 12:30

**Presiding:** Tim Davis, President

## WORKING GROUPS

(Contact Chairs for Agenda and order of  
presentations if not given)

### Watermelon Research Group

**Presiding:** Jerome Bernier, Chair

**Friday:** 1:00 pm – 6:00 pm

**Saturday:** 8:30 am – 3:30 pm

**Room:** River Terrace 3

**Abstracts:** To publish abstract in *HortScience*, see instructions at end of program. Submit on disk at meeting or email to Chair: jerome.bernier@monsanto.com

### Friday, February 2, 2018

**1:00 Introductions:**

**1:30 Regional Watermelon Production**

**Updates:**

Florida, Georgia, Carolinas,  
Delaware/Maryland, Mid-West, West USA

**2:00 Variety updates from Seed Companies**

#### Variety Trial Reports

**2:30 Performance of Triploid Watermelon Cultivars Across the Southeast US.** Joshua H. Freeman<sup>1</sup>, Timothy Coolong<sup>2</sup>, and Gilbert A. Miller<sup>3</sup>, <sup>1</sup>University of Florida, Quincy, FL 32351, <sup>2</sup>University of Georgia, Tifton, GA 31793, <sup>3</sup>Clemson University, Blackville, SC 29817. (tcoolong@uga.edu)

**2:45 2017 Watermelon Variety Evaluation in Georgia.** Timothy Coolong<sup>1\*</sup>, <sup>1</sup>Department of Horticulture, University of Georgia, 2360 Rainwater Road, Tifton, GA 31793. (tcoolong@uga.edu)

**3:00 South Carolina Seedless Watermelon Variety Trial Results.** Gilbert Miller, Edisto

Research and Education Center, Clemson University, Blackville, SC 29817. (gmlr@clemson.edu)

**3:00 Break (3:00-3:30)**

**3:45 Standard size watermelon cultivar yield and quality results, North Carolina, 2017.** Jonathan R. Schultheis\* and Keith D. Starke. North Carolina State University, Department of Horticultural Science, 2721 Founders Drive, Raleigh, NC 29696-7609 (jonr@ncsu.edu)

**4:00 Mini watermelon cultivar yield and quality results, North Carolina, 2017.** Keith D. Starke\* and Jonathan R. Schultheis. North Carolina State University, Department of Horticultural Science, 2721 Founders Drive, Raleigh, NC 29696-7609 (jonr@ncsu.edu)

**4:15 Seedless Watermelon Variety Trials Conducted by University of Delaware Cooperative Extension in 2016 and 2017.** Gordon Johnson\* and Emmalea Ernest, Department of Plant and Soil Sciences, University of Delaware, Elbert N. and Ann V. Carvel Research and Education Center, 16483 County Seat Highway, Georgetown, DE 19947. (gcjohn@udel.edu)

**4:30 Triploid Watermelon Variety Trials in Southwest Indiana, 2017.** Wenjing Guan, Daniel Egel, Dennis Nowaskie and Alex Plummer, Southwest Purdue Agricultural Center, Vincennes, IN, 47591. (guan40@purdue.edu)

#### International Updates

**4:45 Watermelon and Melon Production in Myanmar.** Timothy Coolong<sup>1\*</sup>, <sup>1</sup>Department of Horticulture, University of Georgia, 2360 Rainwater Road, Tifton, GA 31793. (tcoolong@uga.edu)

#### Grafting

**5:00 Hollow heart formation in grafted and non-grafted watermelon.** Marlee A Trandel\*, Dr. Penelope Perkins-Veazie, Dr. Jonathan Schultheis, Dr. Chris Gunter and Dr. Eva Johannes. North Carolina State University, Department of Horticultural Science, 2721 Founders Drive, 264 Kilgore, Raleigh, NC 27695-7609. (matrande@ncsu.edu)

**5:15 Production of Grafted Watermelon Transplants Update.** Richard L. Hassell\*, Coastal Research and Education Center,

Clemson University, Charleston SC, 29414.  
(rhassel@clemson.edu)

**5:30 Rootstock and Grafted Watermelon Evaluation under Disease Challenge.** Gordon C. Johnson\*, Department of Plant and Soil Sciences, University of Delaware, Elbert N. and Ann V. Carvel Research and Education Center, 16483 County Seat Highway, Georgetown, DE 19947. (gcjohn@udel.edu)

**5:45 Influence of plant density, nutrient quantities and foliar fertilizer on watermelon yield, fruit quality and root morphology in Grafted and Non-grafted watermelons grown under Sensor-based drip irrigation plasticulture production.** Gilbert Miller\*, Edisto Research and Education Center, Clemson University, Blackville, SC 20817. (gmlr@clemson.edu)

**6:00 Adjourn**

### Saturday, February 3, 2018

**8:30 Welcome and additional introductions:** Jerome Bernier, Chair, WRDG.

**9:00 Update from NWA.** Bob Morrissey, Executive Director, National Watermelon Association. 190 Fitzgerald Road, Suite 3, Lakeland, FL 33813  
(bobm@nawatermelon.com)

#### Grafting (continued)

**9:15 Comparison of Grafted and Non-Grafted Watermelon Yield and Quality Grown Under Conventional and Organic Cultural Practices.** Brian K. Ward\* and Richard L. Hassell, Clemson University Coastal Research and Education Center, 2700 Savannah Hwy., Charleston, SC 29414 (bw@clemson.edu)

#### Pollenizers

**9:30 Pollenizer placement considerations effects on watermelon (*Citrullus lanatus*) yield and quality over two growing seasons.** Jonathan R. Schultheis\* and Keith D. Starke. North Carolina State University, Department of Horticultural Science, 2721 Founders Drive, Raleigh, NC 29696-7609 (jonr@ncsu.edu)

#### Watermelon Breeding and Genetics

**9:45 Watermelon Breeding at Texas A&M – A Molecular Approach.** Subas Malla\*. Department of Horticultural Sciences, Texas A&M AgriLife Research and Extension Center, Uvalde, TX 78801.

(subas.malla@ag.tamu.edu)

**10:00 How Sweet is Your Brix?** Leigh Ann Fall<sup>1</sup>, Penny Perkins-Veazie<sup>2</sup>, and Cecilia E. McGregor<sup>1\*</sup>, <sup>1</sup>Department of Horticulture, University of Georgia, 1111 Miller Plant Science Bldg., Athens, GA 30602, <sup>2</sup> Horticultural Science, North Carolina State University, 600 Laureate Way, Kannapolis, NC 28081. (cmcgre1@uga.edu)

**10:15 Break (10:15 to 10:45 PM)**

#### Biotic and Abiotic Stress

**10:45 Powdery mildew resistant watermelon germplasm lines USVL608-PMR, USVL278-PMR, USVL313-PMR and USVL585-PMR.** Shaker Kousik<sup>1\*</sup>, Mihir K. Mandal<sup>1, 2</sup>, Jennifer L. Ikerd<sup>1</sup>, Scott Adkins<sup>3</sup> and William Turechek<sup>3</sup> <sup>1</sup>U.S. Vegetable Laboratory, USDA, ARS, 2700 Savannah Highway, Charleston, SC 29414. <sup>2</sup>ORISE participant sponsored by U.S. Vegetable Laboratory, USDA, ARS. <sup>3</sup>U.S. Horticultural Research Laboratory, USDA, ARS, 2001 South Rock Road, Fort Pierce, FL 34945. (shaker.kousik@ars.usda.gov)

**11:00 Screening for resistance to anthracnose in the watermelon germplasm collection using field, greenhouse and growth chamber environments.** Takshay K. Patel\* and Todd C. Wehner. Department of Horticultural Science, North Carolina State University, Raleigh, NC 27695-7609. (tkpatel@ncsu.edu)

**11:15 Genetics of Fusarium wilt races 1 and 2 resistance in watermelon. Sandra Branham\*, Amnon Levi, Patrick Wechter.** U.S. Vegetable Laboratory, USDA, ARS, 2700 Savannah Highway, Charleston, SC 29414. (sandra.branham@ars.usda.gov)

**Utilizing Soil Fumigation with Chloropicrin Containing Compounds to Manage Fusarium Wilt of Watermelon.** Joshua H. Freeman<sup>1</sup> and Bhabesh Dutta<sup>2</sup>, <sup>1</sup>University of Florida, Quincy, FL 32351, <sup>2</sup>University of Georgia, Tifton, GA 31793. (joshuafr@ufl.edu)

**11:30 Molecular Dissection of Resistance Signaling during Compatible and Incompatible Watermelon- Powdery Mildew (*Podosphaera xanthii*) Interactions using RNA-Seq Approach.** Mihir K. Mandal<sup>1,2\*</sup>, Haktan Suren<sup>3</sup>, Jennifer L. Ikerd<sup>1</sup> and Shaker Kousik<sup>1</sup>. <sup>1</sup>U.S. Vegetable

Laboratory, USDA, ARS, 2700 Savannah Highway, Charleston, SC 29414. <sup>2</sup>ORISE participant sponsored by U.S. Vegetable Laboratory, USDA, ARS. <sup>3</sup> Department of Forest Resources and Environmental Conservation, Virginia Tech, Blacksburg, VA. (mihir.mandal@ars.usda.gov)

**11:45 Late Spring Planting Reduces Fusarium Wilt Incidence in Seedless Watermelon.**

Anthony P. Keinath<sup>1\*</sup>, Timothy W. Coolong<sup>2</sup>, Bhabesh Dutta<sup>2</sup> and Pingsheng Ji<sup>2</sup>, Clemson University, Charleston, SC 29414-5329; University of Georgia, Tifton, GA 31793-5766. (tknth@clemson.edu)

**12:00 Lunch (12:00-1:30)**

**1:30 New Weed Management Strategies in South Carolina Watermelon.**

Matthew A. Cutulle\*, Coastal Research and Education Center, Clemson University, Charleston SC, 29414. (mcutull@clemson.edu)

**1:45 Status of fungicide resistance in *Stagonosporopsis* sp. in Georgia.**

Edward D. Beasley and Bhabesh Dutta. University of Georgia, Tifton, GA 31793-5766. (eddie52@uga.edu)

**2:00 Grafting to control *Pythium* disease in watermelon and characterizing the economically important *Pythium* species affecting cucurbits.**

Sean M. Toporek\* and Anthony P. Keinath, Clemson University Coastal Research and Education Center, Charleston, SC 29414. (stopore@clemson.edu)

**Watermelon Growth and Development**

**2:15 Metabolic and molecular regulation of citrulline biosynthesis in watermelon.**

Vijay Joshi\*. Texas AgriLife Research, Texas A&M system. 1619 Garner Field Rd, Uvalde, Texas 78801. (vijay.joshi@tamu.edu)

**2:30 Impact of biostimulants on leaf physiology and yield of watermelon.**

Daniel I. Leskovar\*, Vijay Joshi, Xuejun Dong, Desire Djidonou, and Madhumita Joshi. Texas A&M AgriLife Research, Texas A&M University, Uvalde, TX 77801 (d-leskovar@tamu.edu)

**WRDG Business**

Hot Topics

Website

Other topics??

2019 WRDG meeting

**3:15 Adjourn**

**Vigna Crop Germplasm Committee**

**Presiding:** Blair Buckley, Chair

**Saturday:** 9:00 am – 12:00 pm

**Room:** City Terrace 9

**Abstracts:** To publish abstract in *HortScience*, see instructions at end of program. Submit on disk at meeting or email to Chair: bbuckley@agctr.lsu.edu

**See agenda for order of presentations**

**Evaluation of Soluble Sugar Content in Cowpea**

**Seeds.** Yuejin Weng, Jun Qin, Waltram Ravelombola, Gehendra Bhattarai, Lingdi Dong, Wei Yang, and Ainong Shi. Department of Horticulture, 316 PTSC, University of Arkansas, Fayetteville, AR 72701, USA.

**Genetic Diversity, Population Structure and Genome-wide Association Study in Cowpea.**

Ainong Shi (1), Jun Qin (1), BeiQuan Mou (2), Yuejin Weng (1), Waltram Ravelombola (1), Haizheng Xiong (1), and Gehendra Bhattarai (1). (1) Department of Horticulture, 316 PTSC, University of Arkansas, Fayetteville, AR 72701, USA; (2) Crop Improvement and Protection Research Unit, US Department of Agriculture, Agricultural Research Service (USDA-ARS), 1636 E. Alisal Street, Salinas, CA 93905, USA.

**A Rapid Approach for Salt Tolerance Evaluation in Cowpea at Seedling Stage.**

Waltram Ravelombola, Yuejin Weng, Jun Qin, and Ainong Shi. Department of Horticulture, University of Arkansas, Fayetteville, AR 72701, USA

**Phenomics of Cowpea at Seedling Stage under Salt Stress.**

Waltram Ravelombola, Yuejin Weng, Jun Qin, and Ainong Shi. Department of Horticulture, 316 PTSC, University of Arkansas, Fayetteville, AR 72701, USA.

**National Cowpea Improvement Association**

**Presiding:** Blair Buckley, Chair

**Saturday:** 1:00 pm – 5:00 pm

**Room:** City Terrace 9

**Abstracts:** To publish abstract in *HortScience*, see instructions at end of program. Submit on disk at meeting or email to Chair: bbuckley@agctr.lsu.edu

See agenda for order of presentations

**Genetic Diversity, Population Structure and Genome-wide Association Study in Cowpea.**

Ainong Shi<sup>1\*</sup>, Jun Qin<sup>1</sup>, Beiquan Mou<sup>2</sup>, Yuejin Weng<sup>1</sup>, Waltram Ravelombola<sup>1</sup>, Haizheng Xiong<sup>1</sup>, and Gehendra Bhattarai<sup>1</sup>, <sup>1</sup>Department of Horticulture, 316 PTSC, University of Arkansas, Fayetteville, AR 72701, <sup>2</sup>Crop Improvement and Protection Research Unit, US Department of Agriculture, Agricultural Research Service (USDA-ARS), 1636 E. Alisal Street, Salinas, CA 93905. (ash@uark.edu)

**Phenomics of Cowpea at Seedling Stage under Salt Stress.** Waltram Ravelombola<sup>1</sup>, Yuejin Weng, Jun Qin, and Ainong Shi, Department of Horticulture, 316 PTSC, University of Arkansas, Fayetteville, AR 72701. (wravelom@email.uark.edu)

**A Rapid Approach for Salt Tolerance Evaluation in Cowpea at Seedling Stage.** Waltram Ravelombola\*, Yuejin Weng, Jun Qin, and Ainong Shi, Department of Horticulture, University of Arkansas, Fayetteville, AR 72701. (wravelom@email.uark.edu)

## Southern Fruit Workers

**Presiding: Rachel Itle**

(ritle@uga.edu)

**Friday:** 9:00 am – 5:00 pm

**Room:** City Terrace 5

## Horticulture Administrators

**Presiding: Janet Cole, Chair**

(janet.cole@okstate.edu)

**Friday:** 1:00 pm – 5:00 pm

**Room:** Boardroom 1

## SAAS Meetings

### Board Meeting

**Room: Grand Ballroom Section 6**

**Time: 2:15 PM–3:15 PM**

### General Business Meeting

**Room: Grand Ballroom Section 6**

**Time: 4:00 PM–5:00 PM**

### SAAS Social/Super Bowl Party

**Room: Grand Ballroom Section 4/5**

**Time: 4:15 PM – until**

## Instructions for Submission of Abstracts for Publication in *HortScience*

- 1) One of the authors must be registered for the conference.
- 2) The title of the abstract must appear in the published conference program.
- 3) The abstract must be submitted as a document file in the proper format.
- 4) The abstract must be submitted to the Chair of the session by the deadline.

### Submission of Abstract

**File Format:** Each abstract must be submitted as a separate Word (.doc) file. If you use another word processing language, submit abstract in rich text format (.rtf).

**Deadline:**

- 1) At meeting: Give disk with file to the Chair of the session.
- 2) Email abstracts as an attached file to the Chair of the session before the meeting or within a few days after the meeting. See the Section Program for the Chair's email address.

### Abstract Format

**Length:** Limit the abstract body to about 2000 characters.

**Font:** 12 point, Times New Roman or similar

**Format:** Format abstract as below. Asterisk denotes presenting author.

### Example Format

#### **Molecular Marker-Derived Genetic Similarity Analysis of a Segregating Blackberry Population**

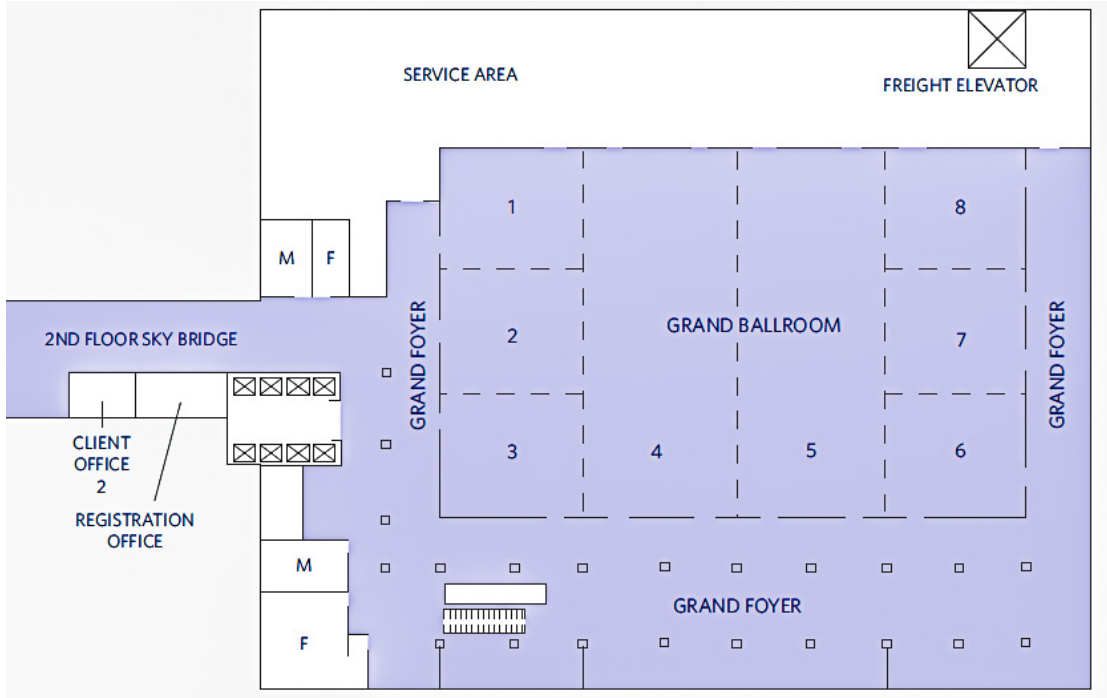
Eric T. Stafne\*<sup>1</sup>, John R. Clark<sup>1</sup>, and Kim S. Lewers<sup>2</sup>

<sup>1</sup>316 Plant Sciences, Department of Horticulture, University of Arkansas, Fayetteville, AR 72701, <sup>2</sup>USDA-ARS Fruit Lab, 10300 Baltimore Ave., BARC-West Bldg. 010A, Beltsville, MD 20705

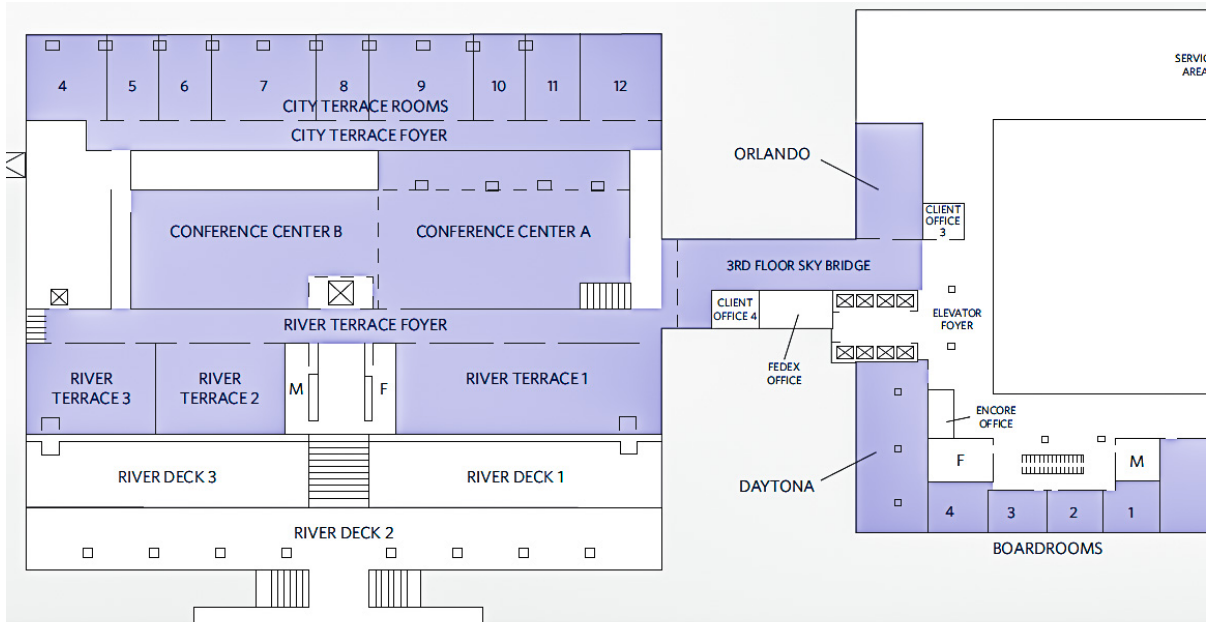
A tetraploid blackberry population that segregates for two important morphological traits, thornlessness and primocane fruiting, was tested with molecular marker analysis. Both randomly amplified polymorphic DNA (RAPD) and simple sequence repeat (SSR) markers were used to screen a population of 98 genotypes within the population plus the two parents, 'Arapaho' and 'Prime-Jim'<sup>®</sup> (APF-12). RAPD analysis averaged 3.4 markers per primer, whereas SSR analysis yielded 3.0 markers per primer pair. Similarity coefficient derived from the Dice index averaged over all individuals was 63% for RAPD markers, 73% for SSR markers, and 66% for RAPD and SSR markers together. The average similarity coefficients ranged from a high of 72% to a low of 38% for RAPD markers, 80% to 57% for SSR markers, and 73% to 55% for both. Comparison of the parents indicated a similarity of 67% for RAPD markers, 62% for SSR markers, and 67% for both. This is similar to a previous study that reported the similarity coefficient at 66%. Although inbreeding exists within the population, the level of heterozygosity is high. Also, evidence of tetrasomic inheritance was uncovered within the molecular marker analysis. This population will be used to identify potential markers linked to both morphological traits of interest. Further genetic linkage analysis and mapping is needed to identify any putative markers.

# Meeting Room Locations

## 2<sup>nd</sup> Floor



## 3<sup>rd</sup> Floor





## 2018 Program at a Glance

### Friday, February 2

Hyatt Regency Riverfront	8:00	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00
Hotel Lobby	7:00 open Registration									
City Terrace 5	Southern Fruit Workers									
River Terrace 3	Watermelon Research Group									
Boardroom 1	Horticulture Administrators Executive Com.									
River Terrace 2	ACB Club Share and Networking ACB Activities, Tour, Meal - TBA ASHS Student Benefits									

### Saturday, February 3

Hyatt Regency Riverfront	8:00	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00
3rd Floor Sky Bridge	7:00 open Registration									
Conference Center A	Authors Pin-Up Posters Poster Session Viewing, Authors at Posters & Judging									
River Terrace 1	Judging Contest Set-Up J. Benton Storey Horticulture Judging Contest									
River Terrace 3	Watermelon Research Group									
City Terrace 9	Vigna Crop Germplasm Committee National Cowpea Improvement Association									
City Terrace 5	Extension Section Education Section Fruit Crops Section									
City Terrace 4	Vegetable Crops Section									
City Terrace 6	Edmond UG Paper Competition Childers M.S. Paper Competition Barham Ph.D. Paper Competition									

### Sunday, February 4

Hyatt Regency Riverfront	8:00	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00
3rd Floor Sky Bridge	7:00 open Registration									
Conference Center A	Poster Session Viewing Poster Take down									
Grand Ballroom Section 6	ACB Business Meeting Business Meeting/Awards Prog.									
City Terrace 9	Vegetable Crops Section									
City Terrace 10	Floriculture, Ornamentals & Turf Section									
City Terrace 8	Fruit Crops Section									
Boardroom 2	Postharvest & Biotechnology Section									
Grand Ballroom Section 6	SAAS Board Mtg. SAAS Business Mtg									
Boardroom 2	SAAS Super Bowl Party									



**In**



**July 31-August 3, 2018**