

# PROGRAM



## 2022 Annual Meeting

February 11-13, 2022

New Orleans, LA

86<sup>th</sup> Year

Southern Region

American Society for Horticultural Science

102<sup>nd</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 Seal, 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**

**Amy Wright**

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### **President-Elect**

**Matt Chappell**

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### **Secretary-Treasurer**

**David Wm. Reed**

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

# PROGRAM

## 2022 ANNUAL MEETING

### Southern Region

### American Society for Horticultural Science

February 11-13, 2022  
New Orleans, LA

#### FRIDAY

7:00 am -	6:00 pm	<b>Registration</b> Hotel Lobby
9:00 am -	5:00 pm	<b>ASHS Board of Directors</b> Napoleon B1
8:00 am -	5:00 pm	<b>Southern Fruit Workers</b> Napoleon B2
10:00 am -	12:00 pm	<b>ACB Club Share and Networking</b> Napoleon C2
12:00 pm-	5:00 pm	<b>ACB Group Activities, Tour, and Meal</b> Napoleon C2
1:00 pm -	4:45 pm	<b>Watermelon Research Group</b> Napoleon A 2/3
1:00 pm -	5:00 pm	<b>Horticulture Administrators</b> Poydras
5:00 pm -	6:30 pm	<b>Executive Committee Meeting</b> Poydras
5:00 pm -	until	<b>ACB Mixer</b> Napoleon C2 or announced at meeting

#### SATURDAY

7:00 am -	6:00 pm	<b>Registration</b> Napoleon Foyer
8:00 am -	10:00 pm	<b>Poster Set Up Room</b> Napoleon Foyer
8:00 am -	12:00 pm	<b>J. Benton Storey Horticulture Judging Contest Setup</b> Napoleon C3
8:00 am -	8:30 am	<b>Education Section</b> Napoleon C2
8:30 am -	5:00 pm	<b>Extension Section</b> Napoleon C2
8:00 am -	11:30 pm	<b>Fruit Crops Section</b> Napoleon B1
8:00 am -	10:30 am	<b>J. B. Edmond Undergraduate Student Paper Competition.</b> Napoleon C1
8:30 am -	4:00 pm	<b>Watermelon Research Group</b> Napoleon A 2/3
10:00 am -	12:00 pm	<b>Posters Authors Mount Posters</b> Napoleon Foyer
10:45 am -	3:15 pm	<b>Norman F. Childers M.S. Student</b> Napoleon D2
12:00 pm -	5:00 pm	<b>Poster Session Viewing</b> Napoleon Foyer
12:00 pm -	5:00 pm	<b>J. Benton Storey Horticulture Judging Contest</b>

1:00 pm - 3:30 pm Napoleon C3  
**Vegetable Crops Section**  
 Napoleon B1  
 3:30 pm - 5:15 pm **Warren S. Barham Ph.D. Student Paper Competition**  
 Napoleon C1

## **SUNDAY**

7:00 am - 10:45 am **Registration**  
 Napoleon Foyer  
 8:00 am - 10:45 am **Poster Session Viewing**  
 Napoleon Foyer  
 8:00 am - 10:15 am **Vegetable Crops Section**  
 Oakley  
 8:00 am - 11:00 am **Floriculture, Ornamentals and Turf Section**  
 Edgewood A/B  
 8:00 am - 10:45 am **Fruit Crops Section**  
 Estherwood  
 8:00 am - 10:45 am **Postharvest & Biotechnology Section**  
 Napoleon A1  
 9:00 am - 10:45am **ACB Business Meeting**  
 Borgne  
 11:00 am - 12:30 pm **Annual Business Meeting and Award Program**  
 Borgne  
 1:00 pm - 3:00 pm **Poster Session Take Down**  
 Napoleon Foyer

## **SAAS Program**

2:30 pm - 3:30 pm **SAAS Board Meeting**  
 Borgne  
 4:00 pm - 4:30 pm **SAAS General Business Meeting**  
 Borgne

## **SAAS Super Bowl Party**

5:00 pm- until SAAS Super Bowl Party  
 Armstrong Ballroom, Sheraton

## REGISTRATION

Friday 7:00 am - 6 pm  
Hotel Lobby  
Saturday 7:00 am - 6 pm  
Napoleon Foyer  
Sunday 7:00 am – 10:45 am  
Napoleon Foyer

## FRIDAY February 11, 2022

### ACB Activities

Room: Napoleon C2  
Time: 10:00 - 12:00 Club Share and  
Networking  
12:00-5:00 Activity/Tour TBA  
5:00 – Mixer exact time/place TBA  
Presiding: Elizabeth Clippard, ACB-President  
Nate Phillips, ACB Advisor

### SRASHS Executive Committee

Room: Poydras  
Time: 5:00 - 6:30  
Presiding: Mengmeng Gu, Chair

### ASHS Board of Directors

Room: Napoleon B1  
Time: 9:00 - 5:00  
Presiding: Mike Neff, Coordinator

### Working Groups

Listed at end of program

## SATURDAY February 12, 2022

### J. BENTON STOREY UNDERGRADUATE JUDGING CONTEST

Room: Napoleon C3  
Time: 8:00 - 12:00 Contest Set-Up  
12:00-5:00 Judging Contest  
5:00 -until Scoring contest  
Presiding: TBA, ACB Vice-President  
Nate Philips, ACB Advisor

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

Room: Napoleon C1  
Presiding: Elizabeth Clippard, ACB-President,  
Moderator  
Amy Wright, SRASHS President,  
Courtesy Welcome to Undergrads  
Jeb Fields, Section Chair & Judging  
Coordinator

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

8:00-11:15 - Order of Presentations roughly at 15 min intervals

1. **Carbohydrate Budget of Pecan Trees during 2021 Fruiting Season.** Wendy Gong\*, Srijana Panta and Lu Zhang. Department of Horticulture & Landscape Architecture, Oklahoma State University, Stillwater, OK 74078. (luzhang@okstate.edu)
2. **Carbohydrate content of rhizomes as potential indicator of sod tensile strength in *Cynodon spp.*** Abigail Hobbs\*, Charles Fontanier, Niels Maness, and Shehbaz Singh, Department of Horticulture and Landscape Architecture, Oklahoma State University, Stillwater, OK 74078-6027. (abigail.hobbs@okstate.edu)
3. **Cut Flower Carnation Photoluminescence.** Abby Pace<sup>1\*</sup>, Bruce L. Dunn<sup>1</sup>, Charles Fontanier<sup>1</sup>, Carla Goad<sup>2</sup>, and Hardeep Singh<sup>31</sup>, 358 Ag Hall, Department of Horticulture and Landscape Architecture, Oklahoma State University, Stillwater, OK 74078, <sup>2</sup>301F MSCS Bldg., Department of Statistics, Oklahoma State University, Stillwater, OK 74078, <sup>3</sup>2002 Throckmorton Plant Science Center, Kansas State University, Manhattan, KS 66506 (bruce.dunn@okstate.edu)
4. **Discovery of Natural Agents for the Control of Ball Moss (*Tillandsia recurvate*) on Ornamental Landscape Plants.** Brianna Slade\*, Heather Kirk-Ballard and Zhijun Liu, School of Plant, Environmental and Soil Sciences, Louisiana State University, Baton Rouge, LA. 70803. (bslade1@lsu.edu).
5. **Effects of Nitrogen, Potassium, and Musketeer® Turf Growth Regulator on Dollar Spot Disease Severity of Creeping**

- Bentgrass.** Ashton Franks\* and Charles Fontanier. Department of Horticulture and Landscape Architecture, Oklahoma State University, Stillwater, OK 74078-6027. (ashton.franks@okstate.edu)
6. **Effects of Paper and Plastic Mulch on Tomato and Okra Production.** Izzy Gonzales<sup>1\*</sup>, Bizhen Hu<sup>2</sup>, Lynn Brandenberger<sup>2</sup>, Matthew Beartrack<sup>2</sup>, and Charles Fontanier<sup>2</sup>. <sup>1</sup>Department of Environmental Science, Oklahoma State University, Stillwater, OK 74078, <sup>2</sup>Department of Horticulture and Landscape Architecture, Oklahoma State University, Stillwater, OK 74078. (bizhen.hu@okstate.edu)
  7. **Effects of Trellising Systems on Spotted-Wing Drosophila in Blackberries in Arkansas.** Mataya Duncan <sup>1\*</sup>, Sarah Cato <sup>2</sup>, Lizzy Herrera <sup>2</sup>, Aaron Cato <sup>2</sup>, and Amanda McWhirt <sup>2</sup>, <sup>1</sup> Department of Biology, University of Arkansas at Little Rock, 2801 S. University Ave., Little Rock, AR 72204, <sup>2</sup> Department of Horticulture, University of Arkansas Cooperative Extension Service, 2301 S. University Ave., Little Rock, AR 72204. (msduncan@ualr.edu)
  8. **Influence of Flue Gas Desulfurization Gypsum on Phosphorus Loss in Pine Bark Substrates.** Landon Erbrick<sup>1\*</sup>, Paul Bartley<sup>1</sup>, Dexter Watts<sup>2</sup>, and Allen Torbert<sup>2</sup>, <sup>1</sup>101 Funchess Hall, Department of Horticulture, Auburn University, AL 36849. <sup>2</sup>USDA-ARS National Soil Dynamics Laboratory, Auburn, AL 36832. (pcb0004@auburn.edu)
  9. **Quality and Yield Responses of Louisiana Tea to Nitrogen Fertilizer Treatments.** Harrison Steudlein<sup>1\*</sup>, Yan Chen<sup>1</sup>, Zhijun Liu<sup>2</sup>, and Lisa Fultz. <sup>1</sup>School of Plant, Environmental and Soil Sciences, Louisiana State University, <sup>2</sup>School of Renewable Natural Resources. Baton Rouge, LA 70803. <sup>1</sup>(yachen@agcenter.lsu.edu)
  10. **Scalable Extraction and Purification of an Anti-Cancer Drug Precursor from Oklahoma Eastern Red Cedar.** Gwen Reilly<sup>1\*</sup>, Niels Maness<sup>2</sup>, John Nickel<sup>2</sup>, and Katie Stenmark<sup>2</sup>, <sup>1</sup>Department of Nutritional Sciences, <sup>2</sup>Department of Horticulture and Landscape Architecture, Oklahoma State University, Stillwater, OK 74078. (greilly@okstate.edu)
  11. **School gardens: why they are important, who benefits, and how they can be supported.** Shelley Mitchell and Genny Harris\*, OSU Department of Horticulture and Landscape Architecture, Oklahoma State University, Stillwater, Oklahoma 74078. (shelley.mitchell@okstate.edu)
  12. **Tea Leaf Chemical Composition Altered by Temporary Shade in Louisiana.** Javen Little<sup>1\*</sup>, Yan Chen<sup>1</sup>, Harrison Steudlein<sup>1</sup>, Zhijun Liu<sup>2</sup>, and Lisa Fultz<sup>1</sup>. <sup>1</sup>School of Plant, Environmental and Soil Sciences, Louisiana State University, <sup>2</sup>School of Renewable Natural Resources, 227 Renewable Natural Resources Bldg. Baton Rouge, LA 70803. (yachen@agcenter.lsu.edu)
  13. **Using Iron and Sulfur to Correct Iron Deficiency in Potted Petunias.** Alexandria Thompson\* and Bruce L. Dunn. 358 Ag Hall, Department of Horticulture and Landscape Architecture, Oklahoma State University, Stillwater OK, 74078 (bruce.dunn@okstate.edu)

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

**Room:** Napoleon D2

**Presiding:** Matt Chappell, Chair

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

**8:30-12:00, 12:30-3:00 Order of Presentations roughly at 15 min intervals**

1. **A public-private partnership to uncover genetic treasures in *Rubus*.** Katelyn Sheehan-Lust<sup>1\*</sup>, Gina Fernandez<sup>1</sup>, Hamid Ashrafi<sup>1</sup>, Cherie Oschenfeld<sup>2</sup>, Abraham Corrales<sup>3</sup>, Margaret Worthington<sup>4</sup>, Erika Henderson<sup>4</sup>, Courtney Weber<sup>5</sup>, Jill Bushakra<sup>6</sup> and Michael Dossett<sup>7</sup>. <sup>1</sup> Department of Horticultural Science, NCSU Raleigh NC, <sup>2</sup> Pairwise, Durham, NC, <sup>3</sup> Plant Sciences Inc., Watsonville, CA, <sup>4</sup> Department of Horticulture, University of Arkansas Fayetteville, AR, <sup>5</sup> Department of Horticulture, Cornell University Ithaca, NY, <sup>6</sup> USDA, Corvallis, OR, <sup>7</sup> BC Berry Cultivars, Agassiz, British Columbia, Canada. (kesheha@ncsu.edu)
2. **Alleviating dormancy: The effect of temperature, gibberellic acid, and cool-moist stratification on select carex species.** Godwin Shokoya\*, Dr. Charles Fontanier, Dr. Bruce Dunn and Dr. Dennis Martin. Department of Horticulture, Oklahoma State University,



- Stillwater, Oklahoma, OK 74078. (godwin.shokoya@okstate.edu)
3. **An overview: Current state of knowledge of *Cannabis sativa* propagation by cuttings.** Samuel des Bordes\*, Babitha Jampala, Heather Kirk-Ballard, Kathryn Fontenot and Gerald Myers. School of Plant, Environmental and Soil Sciences, Louisiana State University, Baton Rouge, LA 70803. (sdesbo1@lsu.edu)
  4. **Delayed pruning as a tool to prevent frost damage on grapevines in the Southeast Region (*Vitis vinifera* L.).** Jack Bobo<sup>1</sup>, Shane Breeden<sup>1</sup>, Savithri Nambeesan<sup>1</sup>, Mark Hoffman<sup>2</sup>, Cain Hickey<sup>3</sup> and Leonardo Lombardini<sup>1</sup>. <sup>1</sup> Department of Horticulture, University of Georgia, Athens, GA 30606, <sup>2</sup> Department of Horticulture, North Carolina State University, Raleigh, NC 27607, <sup>3</sup> Department of Plant Science, Penn State University, University Park, PA 16802. (jbobo@uga.edu)
  5. **Effect of different colored shade nets on quality and production of ornamental plants.** Harpreet Singh\* and Bruce L. Dunn. Department of Horticulture and Landscape Architecture, Oklahoma State University, Stillwater, OK 74075. (harpreet.singh11@okstate.edu)
  6. **Determining quality, volatile, and aroma sensory attributes of Arkansas-grown hops.** Jordan P. Chenier<sup>1\*</sup>, James O. McClellan<sup>1</sup>, Renee T. Threlfall<sup>1</sup>, Amanda L. McWhirt<sup>2</sup>, Aaron Cato<sup>2</sup>, Luke R. Howard<sup>1</sup> and Cindi R. Brownmiller<sup>1</sup>. <sup>1</sup> 2650 N. Young Avenue, Food Science Department, University of Arkansas, Fayetteville, AR 72704, <sup>2</sup> 2301 S. University Ave., Cooperative Extension Service, University of Arkansas, Little Rock, AR 72204. (jchenier@uark.edu)
  7. **Effects of pumpkin spacing on fruit yield, size, and uniformity.** Kim Heagy<sup>\*1</sup>, Travis Birdsell<sup>2</sup> and Jonathan Schultheis<sup>1</sup>. <sup>1</sup> Raleigh, NC, Department of Horticultural Science, NC State University, <sup>2</sup> Jefferson, NC, Ashe County Center, North Carolina Cooperative Extension Service. (kkheagy@ncsu.edu)
  8. **Evaluating effects of chemical pinching during early vegetative stages on ‘Sunfinity’ sunflower for potted plant production.** Mason Marshall<sup>\*1</sup>, Terri Starman<sup>1</sup>, H. Brent Pemberton<sup>2</sup> and Calvin Trostle<sup>3</sup>. <sup>1</sup> Department of Horticultural Sciences, Texas A&M University, College Station, TX, <sup>2</sup> Texas A&M AgriLife Research, Texas A&M AgriLife Research and Extension Center, Overton, TX, <sup>3</sup> Texas A&M AgriLife Research and Extension, Lubbock, TX, USA. (masonmarshall@tamu.edu)
  9. **Evaluation of shipping potential on marketability of North Carolina-grown muscadine grapes.** J. Cody Rawls<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, Horticulture Department, University of Arkansas, Fayetteville, AR 72701. (rawls@uark.edu)
  10. **Evaluation of sweetpotato varieties in an organically managed system in North Carolina.** Alyssa J. Woodard<sup>1\*</sup>, Jonathan Schultheis<sup>1</sup> and David Suchoff<sup>2</sup>. <sup>1</sup> Department of Horticultural Sciences, North Carolina State University, Raleigh, NC 27695, <sup>2</sup> Department of Crop and Soil Sciences, North Carolina State University, Raleigh, NC 27695. (ajwooda2@ncsu.edu)
  11. **Flowering in ‘Natchez’ crepe myrtle (*Lagerstroemia xfauriei* ‘Natchez’) in relation to crepe myrtle bark scale (*Acanthococcus lagerstroemiae*) and sooty mold (*Capnodium* sp.) incidence.** Beatriz Ruiz\*, P. Alvarez, J. Parsons and Derald A. Harp. Texas A&M University-Commerce, Commerce, TX 75429. (bruiz2@leomail.tamuc.edu)
  12. **Genetic diversity of wild and cultivated muscadine grape (*Vitis rotundifolia*) Populations.** Kenneth Buck\* and Margaret Worthington. 316 Plant Science, Department of Horticulture, University of Arkansas, Fayetteville, AR 72701. (kb013@uark.edu)
  13. **Harvest attributes of 3-year-old Arkansas-grown hops with different fertility rates.** James O. McClellan<sup>1\*</sup>, Renee T. Threlfall<sup>1</sup>, Amanda L. McWhirt<sup>2</sup>, Aaron Cato<sup>2</sup>, Luke R. Howard<sup>1</sup> and Cindi R. Brownmiller<sup>1</sup>. <sup>1</sup> 2650 N. Young Avenue, Food Science Department, University of Arkansas, Fayetteville, AR 72704, <sup>2</sup> 2301 S. University Ave., Cooperative Extension Service, University of Arkansas, Little Rock, AR 72204. (jomcclel@uark.edu)
  14. **Heat stress responses of tomato plants grafted onto wild relative rootstocks *S. pennellii* and *S. peruvianum*.** Chungkeun Lee\* and Daniel I. Leskovar. Texas A&M AgriLife

- Research and Extension Center, Uvalde, TX 78801. (d-leskovar@tamu.edu)
15. **Higher nitrogen pre-plant rates are not associated with improved yield of June bearing strawberry in North Carolina.** Amanda Lay-Walters<sup>1\*</sup>, Michelle Schroeder-Moreno<sup>2</sup>, Alex Woodley<sup>2</sup> and Mark Hoffmann<sup>1</sup>.  
<sup>1</sup> Department of Horticultural Science, North Carolina State University, Raleigh, NC 27695, <sup>2</sup> Department of Crop and Soil Science, North Carolina State University, Raleigh, NC 27695. (amlay@ncsu.edu)
  16. **Investigating acquisitional nitrogen source preference in southern highbush blueberry.** John Doyle<sup>1\*</sup>, Anish Malladi<sup>1</sup> and Miguel Cabrera<sup>2</sup>. <sup>1</sup> 1111 Plant Sciences Building, Department of Horticulture, University of Georgia, Athens, GA 30601, <sup>2</sup> 4119 Plant Sciences Building, Department of Crop and Soil Sciences, University of Georgia, Athens, GA 30601. (doylejw@uga.edu, malladi@uga.edu)
  17. **Investigating optimal irrigation of *Vitis vinifera* 'Roussanne' vines grown on the Texas High Plains.** Kyle Lauterbach<sup>1\*</sup>, Thayne Montague<sup>1,2</sup>, Pierre Helwi<sup>2</sup> and Ed Hellman<sup>1</sup>. <sup>1</sup> Department of Plant and Soil Science, Texas Tech University, Lubbock, TX 79409, <sup>2</sup> Texas A&M AgriLife Research and Extension Center, Lubbock, TX 79403, <sup>3</sup> Department of Plant and Soil Science, Texas Tech University, Fredericksburg, TX 78624. (klauterb@ttu.edu)
  18. **Investigation of methyl bromide replacements: Controlling soil pests through steam in combination with alternative chemicals.** Emma Volk<sup>1\*</sup>, Gene Fox<sup>1</sup>, Joe Neal<sup>1</sup>, Steven Fennimore<sup>2</sup> and Mark Hoffmann<sup>1</sup>. <sup>1</sup> Department of Horticultural Science, North Carolina State University, Raleigh, NC 27695, <sup>2</sup> University of California Davis, Department of Plant Science, Salinas, CA 93905. (evolk@ncsu.edu)
  19. **Mutation breeding of *Salvia coccinea* with ethyl methanesulfonate (EMS).** Rebekah Maynard\* and J. Ruter, Department of Horticulture, University of Georgia, Athens, GA, 30602. (rebekah.maynard@uga.edu)
  20. **Primocane height manipulation on dwarf and standard blackberry plants utilizing plant growth regulators.** Carmen Johns<sup>1\*</sup>, Margaret Worthington<sup>1</sup>, Christopher Clavet<sup>2</sup> and Tom Kon<sup>2</sup>. <sup>1</sup> 1316 Plant Science, Department of Horticulture, University of Arkansas, Fayetteville, AR 72701, <sup>2</sup> North Carolina State University Department of Horticultural Sciences, Mountain Horticultural Crops Research and Extension Center, 455 Research Drive, Mills River, NC 28759. (cxj025@uark.edu)
  21. **Quantity demand and latent demand for local foods in local public institutions of Lee and Russell Counties, Alabama.** Jesse Teel\*. Department of Horticultural Sciences, Auburn University, Auburn, AL 36830. (jct0014@auburn.edu)
  22. **Using *Lachanea thermotolerans* yeast to modify acidity in wine fermentations from Chambourcin grapes grown in Arkansas.** Amanda J. Fleming\* and Renee T. Threlfall. 2650 N. Young Avenue, Department of Food Science, University of Arkansas, Fayetteville, AR 72704. (ajflemin@uark.edu)
  23. **Volatile and sensory aroma attributes of arkansas-grown fresh-market blackberries.** Andrea L. Myers\*, Renee T. Threlfall, Luke R. Howard and Cindi R. Brownmiller. 2650 N. Young Avenue, Food Science Department, University of Arkansas, Fayetteville, AR 72704. (alm028@uark.edu)
  24. **Water temperature effects on basil growth in NFT hydroponic systems.** Teal Hendrickson\* and Bruce Dunn. 358 Ag Hall, Department of Horticulture and Landscape Architecture, Stillwater, OK 74078. (teal.hendrickson@okstate.edu)

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

**Room:** Napoleon C1

**Presiding:** Matt Chappell, Chair

**Abstracts:** To publish abstract in *HortScience*, see instructions at end of program. Submit on disk at meeting or email to 1:00-4:45Chair: chappell@vt.edu

**1:00 – 4:45: Order of Presentations roughly at 15 min intervals**

1. **3D phenotyping and quantitative analysis of peach tree architecture via terrestrial laser scanning.** Jordan Knapp-Wilson<sup>1\*</sup>, Rafael Bohn Reckziegel<sup>2</sup>, Alexander Bucksch<sup>3</sup> and Dario J. Chavez<sup>4</sup>. <sup>1</sup> Cowart Building - Rm 214, Institute of Plant Breeding, Genetics, Genomics, University of



- Georgia, Griffin Campus, Griffin, GA 30223, <sup>2</sup> Chair of Forest Growth and Dendroecology, University of Freiburg, Freiburg, Germany 79098, <sup>3</sup> Miller Plant Sciences - Rm 2611, Department of Plant Biology, University of Georgia, Athens Campus, Athens, GA 30602, <sup>4</sup>Physiology Building - Rm 105, Department of Horticulture, University of Georgia, Griffin Campus, Griffin, GA 30223. (jrk88473@uga.edu)
2. **Association mapping of fruit firmness and morphology in blackberry.** Mason Chizk<sup>1\*</sup>, Margaret Worthington<sup>1</sup>, Carmen Johns<sup>1</sup>, Lacy Nelson<sup>1</sup>, John R. Clark<sup>1</sup>, Rishi Aryal<sup>2</sup> and Hamid Ashrafi<sup>2</sup>. <sup>1</sup> 1316 Plant Science, Department of Horticulture, University of Arkansas, Fayetteville, AR 72701, <sup>2</sup> North Carolina State University Department of Horticultural Sciences, 234 Kilgore Hall Campus Box 7609, Raleigh, NC 27695. (tmchizk@uark.edu)
  3. **Dissection of race 1 anthracnose resistance in a watermelon (*Citrullus lanatus* var. *lanatus*) biparental mapping population.** Bed Prakash Bhatta<sup>1,2\*</sup>, Takshay Patel<sup>3</sup>, Edgar Correa<sup>1,2</sup>, Todd C. Wehner<sup>3</sup>, Kevin M. Crosby<sup>1</sup>, Michael J. Thomson<sup>4</sup>, Richard Metz<sup>5</sup>, Shichen Wang<sup>5</sup>, Marcel Brun<sup>5</sup>, Charles D. Johnson<sup>5</sup> and Subas Malla<sup>1,2</sup>. <sup>1</sup> Department of Horticultural Sciences, Texas A&M University, College Station, Texas, 77843, USA, <sup>2</sup> Texas A&M AgriLife Research and Extension Center, Uvalde, Texas, 78801, USA, <sup>3</sup>Department of Horticultural Science, North Carolina State University, Raleigh, North Carolina, 27695, USA, <sup>4</sup> Department of Soil and Crop Sciences, Texas A&M University, College Station, Texas, 77843, USA, <sup>5</sup> Genomics and Bioinformatics Service, Texas A&M AgriLife Research, College Station, Texas, 77843, USA. (subas.malla@ag.tamu.edu)
  4. **Evaluation of one-time foliar auxin applications co-applied with a surfactant in the propagation of woody ornamentals.** Anthony T. Bowden<sup>1\*</sup>, Patricia R. Knight<sup>1</sup>, Jenny B. Ryals<sup>1</sup>, Christine E.H. Coker<sup>1</sup>, Scott A. Langlois<sup>1</sup>, Shaun R. Broderick<sup>2</sup>, Eugene K. Blythe<sup>3</sup>, Hamidou F. Sakhanokho<sup>4</sup> and Ebrahiem M. Babiker<sup>4</sup>. <sup>1</sup> Coastal Research and Extension Center, South Mississippi Branch Experiment Station, P.O. Box 193, Poplarville, MS 39470, <sup>2</sup> Truck Crops Branch Experiment Station, 2024 Experiment Station Rd., Crystal Springs, MS 39059, <sup>3</sup> College of Agriculture, Auburn University, Auburn, AL 36849, <sup>4</sup>USDA-ARS Southern Horticultural Lab., P.O. Box 287, Poplarville, MS 39470. (ab1001@msstate.edu)
  5. **Evaluation of nitrogen rate and fertilizer source for the production of organic onion in Georgia.** Hanna de Jesus<sup>\*1</sup>, Kate Cassidy-Duffey<sup>1</sup>, Andre da Silva<sup>2</sup>, Bhabesh Dutta<sup>3</sup> and Timothy Coolong<sup>1</sup>. <sup>1</sup> 1111 Miller Plant Sciences, University of Georgia, Athens, GA 30602, <sup>2</sup> 124 Funchess Hall, Auburn University, Auburn, AL 36849, <sup>3</sup> 2360 Rainwater Rd., University of Georgia, Tifton, GA 31793. (hannaij@uga.edu)
  6. **Effect of drying methods on hemp flower quality.** Noelle Joy<sup>\*1</sup>, Timothy Coolong<sup>1</sup>, and Daniel Jackson<sup>2</sup>. <sup>1</sup> 1111 Miller Plant Sciences, University of Georgia, Athens, GA 30602, <sup>2</sup> 2400 College Station Rd., Crop Quality Lab, University of Georgia, Athens, GA 30602. (noellejoy@uga.edu)
  7. **Hydration of traditional and stratified substrates under varied moisture conditions.** Kristopher S. Criscione<sup>\*</sup> and Jeb S. Fields. Hammond Research Station, Louisiana State University Agricultural Center, 21549 Old Covington Hwy., Hammond, LA 70403. (kcrisc2@lsu.edu)
  8. **Impact of light intensity on bud fruitfulness of French-American hybrid ‘Traminette’ and American ‘Concord’ grapevines.** Kyle Freedman<sup>\*</sup>, Cristian Collado, Ricardo Hernández and Mark Hoffmann. Department of Horticultural Science, North Carolina State University, Raleigh, NC 27695. (kafreedm@ncsu.edu)
  9. **Influence of cadmium on growth and nutrient uptake in hydroponically-grown hemp.** Amanda Olbrick Marabesi<sup>\*1</sup>, Timothy Coolong<sup>1</sup> and Jason Lessl<sup>2</sup>. <sup>1</sup> 1111 Miller Plant Sciences, University of Georgia, Athens, GA 30602, <sup>2</sup> 2400 College Station Rd., Agricultural and Environmental Services Lab, University of Georgia, Athens, GA 30602. (aom@uga.edu)
  10. **Integration of blueberry flavor volatile with consumer acceptability for identification of key flavor compounds.** Jamal Mohammed<sup>1\*</sup>, Kathleen S. Amaral<sup>1</sup>, Juyoung Kim<sup>2</sup>, Shangci Wang<sup>2</sup>, Koushik Adhikari<sup>2</sup>, Renée M. Holland<sup>3</sup>, D. Scott NeSmith<sup>1</sup> and Rachel A. Itle<sup>1</sup>. <sup>1</sup> Department of Horticulture, University of Georgia, UGA–Cownt Building, 210 Cownt Street, Griffin, GA 30223, <sup>2</sup> Department of Food Science & Technology, University of Georgia, UGA – Melton Building, 350 Woodroof Drive, Griffin GA, 30223, <sup>3</sup> ANR Extension, University of Georgia Extension, 203 South Dixon Street, Suite 3, Alma, GA 31510. (jm30002@uga.edu)

11. **Integration of quantitative trait loci (QTL) associated with gummy stem blight resistance from a crop wild relative into elite watermelons.** Samikshya Rijal\*, and Cecilia McGregor, Institute of Plant Breeding, Genetics & Genomics, University of Georgia, Athens, GA 30602, USA. (sr12566@uga.edu)
12. **Screening of cowpea (*Vigna unguiculata* (L.) Walp.) genotypes for waterlogging tolerance using morpho-physiological traits at the early growth stage.** Omolayo J. Olorunwa<sup>1\*</sup>, Bikash Adhikari<sup>1</sup>, Ainong Shi<sup>2</sup> and T. Casey Barickman<sup>1</sup>. <sup>1</sup>Department of Plant and Soil Sciences, Mississippi State University, North Mississippi Research and Extension Center, Verona, MS, 38879, <sup>2</sup>Department of Horticulture, University of Arkansas, Fayetteville, AR 72701. (ojo26@msstate.edu)
13. **SmartIrrigation peach app for irrigation scheduling in a mature peach orchard.** Srijana Thapa Magar<sup>\*1</sup>, George Vellidis<sup>2</sup>, Wesley Porter<sup>2</sup>, Vasileios Liakos<sup>2</sup>, Jose H. Andreis<sup>3</sup> and Dario J. Chavez<sup>1</sup>. <sup>1</sup>Department of Horticulture, University of Georgia, Griffin Campus, Griffin, GA 30223, <sup>2</sup>Department of Crop and Soil Sciences, University of Georgia, Tifton Campus, Tifton, GA 31793, <sup>3</sup>Austn LTDA ME, Marau, RS 99150-000, Brazil. (st45674@uga.edu)
14. **Texture characteristics associated with fruit shelf-life in blueberry.** Heeduk Oh<sup>1,2\*</sup>, Marti Pottorff<sup>1</sup>, Lara Giongo<sup>3</sup>, Massimo Iorizzo<sup>1,2</sup> and Penelope Perkins-Veazie<sup>1,2</sup>. <sup>1</sup>Plants for Human Health Institute, North Carolina State University, Kannapolis, NC, USA 28081, <sup>2</sup>Department of Horticulture, North Carolina State University, Raleigh, NC, USA 27607, <sup>3</sup>Fondazione Edmund Mach, Research and Innovation Centre, San Michele a/A, Trento, Italy. (penelope\_perkins@ncsu.edu, miorizz@ncsu.edu)
15. **“To eat, or not to eat” question answered by real-time monitoring system combined with semiautomatic analysis of feeding behavior study for crapemyrtle bark scale.** Bin Wu<sup>1,2\*</sup>, Runshi Xie<sup>1,2</sup>, Elizabeth Chun<sup>2</sup>, Gary W. Knox<sup>3</sup>, Mengmeng Gu<sup>4</sup> and Hongmin Qin<sup>2</sup>. <sup>1</sup>Department of Horticultural Sciences, Texas A&M University, College Station, TX 77843, <sup>2</sup>Department of Biology, Texas A&M University, College Station, TX 77843, <sup>3</sup>Department of Environmental Horticulture, University of Florida/IFAS North Florida Research and Education Center, Quincy, FL 32351, <sup>4</sup>Department of Horticultural.

## POSTERS

**Room:** Napoleon Foyer

**Presiding:** Andre DaSilva, Chair

**Abstracts:** To publish abstract in *HortScience*, see instructions at end of program. Submit on disk at meeting or email to Chair: azb0207@auburn.edu

**Set-Up Room:** Saturday, 8:00-10:00

**Mount Posters:** Saturday, 10:00-noon

### Poster Viewing

Saturday 12:00 pm to 5:00 pm

Sunday 8:00-10:45 am

### Authors at their poster and Judging Times:

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

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

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

### Student Poster Competition

**UG** = Indicates undergraduate poster titles

**G** = Indicates graduate poster titles

## Floriculture, Ornamentals and Turf

### 1G) Effect of Hormone Source on Propagation of

**Sweet Bay Magnolia.** Jenny B. Ryals<sup>1\*</sup>, Patricia R. Knight<sup>1</sup>, Anthony T. Bowden<sup>1</sup>, Christine E. H. Coker<sup>2</sup>, Gary R. Bachman<sup>2</sup>, Jim DelPrince<sup>2</sup>, Scott A. Langlois<sup>1</sup> and Patricia R. Drackett<sup>3</sup>. <sup>1</sup>Coastal Research and Extension Center, Mississippi State University, Poplarville, MS 39470, <sup>2</sup>Coastal Research and Extension Center, Mississippi State University, Biloxi, MS 39532, <sup>3</sup>The Crosby Arboretum, Mississippi State University, Picayune, MS 39466 (j.ryals@msstate.edu)

### 2UG) Discovery of Natural Agents for the Control of

**Ball Moss (*Tillandsia recurvate*) on Ornamental Landscape Plants.** Brianna Slade\*, Heather Kirk-Ballard and Zhijun Liu, School of Plant, Environmental and Soil Sciences, Louisiana State University, Baton Rouge, LA. 70803. (bslade1@lsu.edu)

### 3) Reducing Postemergence Herbicide Spot Treatments with Preemergence Herbicides in Landscape Planting Beds

S. Chris Marble<sup>1\*</sup> and Stephen F. Enloe<sup>2</sup>, <sup>1</sup>University of Florida/IFAS Mid-Florida Research and Education Center, 2725 S. Binion Rd., Apopka, FL 32703, <sup>2</sup>University of Florida/IFAS Center for Aquatic and Invasive Plants, 7922 NW 71 St., Gainesville, FL 32653. (marblesc@ufl.edu)

### 4G) Efficacy of plant growth regulator applications on 'Sunfinity' Sunflower

Mason Marshall<sup>\*1</sup>, Terri Starman<sup>1</sup>, H. Brent Pemberton<sup>2</sup>, Calvin Trostle<sup>3</sup>, 1

Department of Horticultural Sciences, Texas A&M University, College Station, TX, 2 Texas A&M AgriLife Research, Texas A&M AgriLife Research and Extension Center, Overton, TX, 3 Texas A&M AgriLife Research and Extension, Lubbock, TX, USA (masonmarshall@tamu.edu)

**5UG) Comparison of Slow-Release Fertilizer and Long-term Composting for Performance of Cool and Warm Season Annuals.**

Alvarez, Phoebe<sup>1</sup>, Steve George<sup>2</sup>, and Derald A. Harp<sup>1</sup>. <sup>1</sup>Texas A&M University-Commerce, Commerce, TX 75429; <sup>2</sup>Texas A&M AgriLife Extension Service, Dallas, TX 75080 (Derald.Harp@leomail.tamuc.edu)

**6) To Pinch or not to Pinch: Cut Flower Marigolds for Southern Growers.**

Christine E.H. Coker<sup>1\*</sup>, James DelPrinzel, Kathryn Fontenot<sup>2</sup>, Anthony Bowden<sup>1</sup>, Scott Langlois<sup>1</sup>, and Patricia Knight<sup>1</sup>, 1815 Popp's Ferry Road, Coastal Research and Extension Center, Mississippi State University, Biloxi, MS 39532, 163 J. C. Miller, School of Plant, Environmental and Soil Sciences, Louisiana State University, Baton Rouge, LA 70803. (cec117@msstate.edu)

**7G) Veteran Emotional Perceptions and Preferences of Landscape Design Elements.**

Alicia A. Thomas\*, Dr. Muntazar Monsur, Dr. Carol S. Lindquist, and Dr. Catherine Simpson, Department of Plant and Soil Science, Texas Tech University, Lubbock, TX 79409 (alicia.thomas@ttu.edu)

**8UG) Greenhouse Growth of Hosta and Salvia 'Mystic Spires' in Peat-Lite, Bark, Wood Fiber, and Coir Substrates.**

Wynne, Madison and Derald A. Harp. Texas A&M University-Commerce, Commerce, TX 75429 (Derald.Harp@leomail.tamuc.edu)

**9G) How native is native? Characterization of locally adapted Carex stands in Oklahoma.**

Godwin Shokoya\*, Charles Fontanier, Bruce Dunn, Dennis Martin., Department of Horticulture, Oklahoma State University, Stillwater, Oklahoma, OK 74078. (godwin.shokoya@okstate.edu)

**10G) Life Table Construction for Crapemyrtle Bark Scale (*Acanthococcus lagerstroemiae*) and its Application in Evaluating the Effect of Different Plant Nutrient Conditions on Insect Performance.**

Runshi Xie<sup>1,3</sup>, Bin Wu<sup>1,3</sup>, Mengmeng Gu<sup>2</sup>, and Hongmin Qin<sup>3\*</sup>, <sup>1</sup> Department of Horticultural Sciences, Texas A&M University, College Station, TX 77843, USA, <sup>2</sup> Department of Horticultural Sciences, Texas A&M AgriLife Extension Service, College

Station, TX 77843, <sup>3</sup> Department of Biology, Texas A&M University, College Station, TX 77843. (hqin@bio.tamu.edu)

**11G) Vegetative and Generative Traits of Different Gladiolus Genotypes as Induced by Distinct Compounds.**

L. Anderson\* and S. Islam Department of Agriculture/Agricultural Regulations, University of Arkansas at Pine Bluff, 148 Woodard Hall, 1200 North University Drive, Mail Slot 4913, Pine Bluff, AR 71601 (islams@uapb.edu)

**Fruit Crops**

**12) Aronia 'Viking' Responds Favorably to Chill Hours.**

Bodie Pennisi<sup>1\*</sup>, Carol Robacker<sup>1</sup>, and Nirmal Joshee<sup>2</sup>, <sup>1</sup>Department of Horticulture, University of Georgia Griffin-Campus, Griffin, GA 30223, <sup>2</sup>College of Agriculture, Family Sciences and Technology, Fort Valley State University, Fort Valley, GA 31030 (bpennisi@uga.edu)

**13G) A public-private partnership to uncover genetic treasures in Rubus.**

Katelyn Sheehan-Lust<sup>1</sup>, Gina Fernandez<sup>1</sup> and Cherie Oschenfeld<sup>2</sup>. <sup>1</sup>Department of Horticultural Science, NCSU Raleigh NC, <sup>2</sup>Pairwise, Durham NC. (kesheeha@ncsu.edu)

**14) Assessment of MP-29 Rootstock for Potted Peach Production.**

Elina Coneva, Department of Horticulture, Auburn University, Auburn, AL, 36849. (Edc0001@auburn.edu)

**15G) An Analysis of Factors Affecting the Rooting Ability of Hardwood Muscadine Cuttings.**

Kenneth Buck<sup>1\*</sup>, Margaret Worthington<sup>1</sup>, and Patrick Conner<sup>2</sup>, <sup>1</sup>316 Plant Science, Department of Horticulture, University of Arkansas, Fayetteville, AR 72701, <sup>2</sup>Department of Horticulture, University of Georgia – Tifton Campus, 2360 Rainwater Road, Tifton, GA, 31793. (kb013@uark.edu)

**16) Empirical evaluation of multi-trait DNA testing in an apple seedling population.**

Sushan Ru<sup>1\*</sup>, Craig Hardner<sup>2</sup>, Katherine M. Evans<sup>3</sup>, Dorrie Main<sup>4</sup>, Patrick A. Carter<sup>5</sup>, Julia Harshman<sup>6</sup>, Paul Sandefur<sup>7</sup>, Daniel Edge-Garza<sup>2</sup> and Cameron Peace<sup>4</sup>, <sup>1</sup>Auburn University, Auburn, AL, 36849, <sup>2</sup>Queensland Alliance for Agriculture and Food Innovation, The University of Queensland, Brisbane, 4072, Australia, <sup>3</sup>Department of Horticulture, Washington State University Tree Fruit Research & Extension Center, Wenatchee, WA 98801, USA, <sup>4</sup>Department of Horticulture, Washington State University, Pullman, WA, 99164 USA, <sup>5</sup>School of Biological Sciences, Washington

State University, Pullman, WA, 99164, USA, <sup>6</sup>Duda Farm Fresh Foods, Salinas, CA 92908, USA, <sup>7</sup>FallCreek Farm and Nursery, Inc., Lowell, OR 97452, USA (sizr0099@auburn.edu)

- 17G) Comparing Sugar Profiles in Southern Highbush, Rabbiteye, and Northern Highbush Blueberry Cultivars.** Jamal Mohammed<sup>1\*</sup>, Kathleen S. Amaral<sup>1</sup>, Renée M. Holland<sup>2</sup>, Dario J. Chavez<sup>1</sup>, and Rachel A. Itle<sup>1</sup>. <sup>1</sup>Department of Horticulture, University of Georgia, UGA– Cowart Building, 210 Cowart Street, Griffin, GA 30223, <sup>2</sup>ANR Extension, University of Georgia Extension, 203 South Dixon Street, Suite 3, Alma, GA 31510. (jm30002@uga.edu)
- 18G) Exploring Nanocellulose as an Active Freeze Protection Strategy in Peaches.** Deanna Bigio<sup>1</sup>, Rachel A. Itle<sup>1</sup>, Sudhagard Mani<sup>2</sup>, and Dario J. Chavez<sup>1</sup>. <sup>1</sup>Department of Horticulture, University of Georgia, Griffin Campus, GA 30224. <sup>2</sup>College of Engineering, University of Georgia, Athens, GA 30609 (dchavez@uga.edu)
- 19G) Determining Marketability Impacts of Fresh-market Blackberries to Develop a Soft-robotic Gripper for Harvesting.** Andrea L. Myers<sup>1\*</sup>, Renee T. Threlfall<sup>1</sup>, Yue Chen<sup>2</sup>, and Anthony L. Gunderman<sup>2</sup>. <sup>1</sup>2650 N. Young Avenue, Food Science Department, University of Arkansas, Fayetteville, AR 72704. <sup>2</sup>313 Ferst Dr., Biomedical Engineering Department, Georgia Institute of Technology/Emory, NW, Atlanta, GA 30332. (alm028@uark.edu)
- 20) Genetic Control of Primocane Height in Blackberry.** Carmen Johns<sup>1\*</sup>, Margaret Worthington<sup>1</sup>, Mason Chizk<sup>1</sup>, Lacy Nelson<sup>1</sup>, John R. Clark<sup>1</sup>, Rishi Aryal<sup>2</sup>, and Hamid Ashrafi<sup>2</sup>. <sup>1</sup>316 Plant Science, Department of Horticulture, University of Arkansas, Fayetteville, AR 72701, <sup>2</sup>North Carolina State University Department of Horticultural Sciences, 234 Kilgore Hall Campus Box 7609, Raleigh, NC 27695. (cxj025@uark.edu)
- 21G) Winegrape Quality of ‘MidSouth’ Following Canopy Manipulation in South Mississippi.** Haley N. Williams\* and Eric T. Stafne. Mississippi State University, MAFES South MS Branch Experiment Station, 711 W. North St., Poplarville, MS 39470. (hwn111@msstate.edu)
- 22) Optimizing irrigation scheduling for maximum fruit size in peach orchards in South Carolina.** Juan Carlos Melgar\*, Department of Plant and Environmental Sciences, Clemson University, Clemson, SC 29631. (jmelgar@clemson.edu)
- 23G) Impact of Harvest Date on Volatile Components of Arkansas-grown Blackberries.** Jordan P. Chenier\*, Andrea L. Myers, Renee T. Threlfall, Luke R. Howard, and Cindi R. Brownmiller, 2650 N. Young Avenue, Food Science Department, University of Arkansas, Fayetteville, AR 72704. (jchenier@uark.edu)
- 24) Performance of Selected Blackberry Cultivars in Alabama.** James D. Spiers\*<sup>1</sup> and Edgar Vinson<sup>2</sup>, <sup>1</sup>111 Funchess Hall, Department of Horticulture, Auburn University, AL 36849, <sup>2</sup>Chilton Research and Extension Center, Clanton, AL 35045. (jds0017@auburn.edu)
- 25G) Expanding Color and Quality Standards for Fresh-market Muscadine Grapes,** J. Cody Rawls<sup>1\*</sup>, Renee T. Threlfall<sup>1</sup>, Penelope Perkins-Veazie<sup>2</sup>, and Margaret L. Worthington<sup>3</sup>. <sup>1</sup>2650 N. Young Avenue, Food Science Department, University of Arkansas, Fayetteville, AR 72704, <sup>2</sup>Plants for Human Health Institute, Department of Horticulture, 600 Laureate Way, Kannapolis, NC 28081. <sup>3</sup>316 Plant Science, Department of Horticulture, University of Arkansas, Fayetteville, AR 72701. (rthrelf@uark.edu)
- 26) Rhizosphere microbiome of grapefruit grown in Florida flatwood soils.** John M. Santiago<sup>1</sup>, Davie M. Kadyampakeni<sup>2</sup>, and Lorenzo Rossi<sup>1\*</sup>. <sup>1</sup>Horticultural Sciences Department, University of Florida, IFAS, Indian River Research and Education Center, Fort Pierce, FL; <sup>2</sup>Soil and Water Sciences Department, University of Florida, IFAS, Citrus Research and Education Center, Lake Alfred, FL. (l.rossi@ufl.edu)
- 27G) Enlightened Roots: The Effect of Supplemental Light on Root Growth Rate of Vitis riparia x V. rupestris '101-14', grafted to French American Hybrid 'Traminette'.** Kiara McKenzie-Perry<sup>1\*</sup>, Kyle Freedman<sup>2</sup> and Mark Hoffmann<sup>2</sup>. <sup>1</sup>North Carolina Agriculture and Technical State University, Department of Agriculture and Environmental Systems, Greensboro NC 27441, <sup>2</sup>Department of Horticultural Sciences, NC State University, Raleigh NC 27695. (knmckenzieperry@aggies.ncat.edu).
- 28) Seedless Muscadine Fruit Chemistry Changes with Low Temperature Storage.** Penelope Perkins-Veazie\*<sup>1</sup>, Mark Hoffman<sup>2</sup>, and Guoying Ma<sup>1</sup>. <sup>1</sup>North Carolina State University, Plants for Human Health Institute, Department of Horticultural Science, 600 Laureate Way, Kannapolis, NC 28081; <sup>2</sup>North Carolina State University, Department of Horticultural Science, Raleigh, NC 27695 (penelope\_perkins@ncsu.edu)

- 29G) Investigating the impact of basal leaf removal, and cluster thinning timing, on potassium accumulation in the berries of red wine grapes.** Jacob N. Muras<sup>1\*</sup>, Justin J. Scheiner<sup>1</sup>, and Michael Cook<sup>2</sup>, Department of Horticultural Sciences, <sup>1</sup> Texas A&M University, HSBF, 2134 TAMU, College Station, TX 77843, <sup>2</sup>Texas A&M AgriLife Extension Service, 401 W. Hickory St. Denton, TX 76201 (muras.jacob@tamu.edu)
- 30) Size-Controlling Apple Rootstocks for High Density Orchards in Alabama.** Elina Coneva, Department of Horticulture, Auburn University, Auburn, AL, 36849. (Edc0001@auburn.edu)
- 31G) Nutritional Status of Young Peach Plants on Guardian and MP-29 Rootstocks Under Different Irrigation Scheduling Practices.** Srijana Thapa Magar<sup>1\*</sup>, George Vellidis<sup>2</sup>, Wesley Porter<sup>2</sup>, Vasileios Liakos<sup>2</sup>, Jose H. Andreis<sup>3</sup>, and Dario J. Chavez<sup>1</sup>, <sup>1</sup>Department of Horticulture, University of Georgia, Griffin Campus, Griffin, GA 30223, <sup>2</sup>Department of Crop and Soil Sciences, University of Georgia, Tifton Campus, Tifton, GA 31793, <sup>3</sup>Austn LTDA ME, Marau, RS 99150-000, Brazil. (st45674@uga.edu)
- 32) Southern Highbush Blueberry Cultivar Fruit Quality Evaluation.** David H. Picha<sup>\*</sup>, Kathryn K. Fontenot, and Heather Kirk-Ballard. School of Plant, Environmental and Soil Sciences, Louisiana State University Agricultural Center, Baton Rouge, LA 70803. (dpicha@agcenter.lsu.edu)
- 33G) Lab screening of nanocellulose as a freeze protection strategy in southern highbush blueberry.** Hannah M. Elliott<sup>1\*</sup>, Jamal Mohammed<sup>1</sup>, Dario J. Chavez<sup>1</sup>, Sudhagar Mani<sup>2</sup>, Renée M. Holland<sup>3</sup>, and Rachel A. Itle<sup>1</sup>, <sup>1</sup>Department of Horticulture, University of Georgia, UGA– Cowart Building, 210 Cowart Street, Griffin, GA 30223, <sup>2</sup>College of Engineering, University of Georgia, 110 Riverbend Road, Athens, GA 30602, <sup>3</sup>ANR Extension, University of Georgia, 203 S. Dixon Street, Alma, GA 31510. (hannah.elliott@uga.edu)
- 34) The Effect of Municipal Mulch and Chicken Litter Applied to Peach Orchards on Fruit Blemishes and Marketable Yield.** Sydney Lykins<sup>1\*</sup>, Brian T. Lawrence<sup>1</sup>, Juan Carlos Melgar<sup>1</sup>, and Guido Schnabel<sup>1</sup>. <sup>1</sup> 105 Collings Street, 218 Biosystems Research Complex, Plant and Environmental Sciences Department, Clemson University, Clemson, SC 29634. (slykins@g.clemson.edu)
- 35G) Rapid Digital Phenotyping of Red Drupelet Reversion and Fruit Morphology in Blackberry.** G Mason Chizk<sup>\*</sup>, Margaret Worthington, John R. Clark. 316 Plant Science, Department of Horticulture, University of Arkansas, Fayetteville, AR 72701. (tmchizk@uark.edu)
- 36UG) Impacts of Novel Training Methods for the Rotating Cross Arm Trellis on Blackberry Yield and Labor Inputs.** Mataya Duncan<sup>1\*</sup>, Sarah Cato<sup>2</sup>, Lizzy Herrera<sup>2</sup>, Aaron Cato<sup>2</sup>, and Amanda McWhirt<sup>2</sup>, <sup>1</sup>Department of Biology, University of Arkansas at Little Rock, 2801 S. University Ave., Little Rock, AR 72204, <sup>2</sup> Department of Horticulture, University of Arkansas Cooperative Extension Service, 2301 S. University Ave., Little Rock, AR 72204. (msduncan@ualr.edu)
- 37G) Survey of Wine Purchasing and Consumption Habits of Consumers of Commercial Arkansas Wines.** Amanda J. Fleming<sup>\*</sup> and Renee T. Threlfall, 12650 N. Young Avenue, Department of Food Science, University of Arkansas, Fayetteville, AR 72704. (ajflem@uark.edu)
- 38) Postharvest Evaluation of Gold Kiwifruit Cultivars Grown in Central Alabama.** James D. Spiers<sup>\*</sup>, 111 Funchess Hall, Department of Horticulture, Auburn University, AL 36849. (jds0017@auburn.edu)
- 39G) Fine Mapping of QFD2.2, a Major QTL for Fruit Diameter in Watermelon (*Citrullus lanatus*).** Samuel Manthi<sup>\*</sup> and Cecilia McGregor, Department of Horticulture, University of Georgia, 1111 Plant Sciences Building, Athens, GA 30602, USA. (samuel.josiah@uga.edu)
- Vegetable Crops**
- 40) Evaluation of Radish Varieties in the Virgin Islands.** Daryl A. Richards, Jr.<sup>\*</sup>, Jessica Ewer, and Thomas W. Zimmerman, Agricultural Experiment Station, University of the Virgin Islands, 10,000 Castle Burke, Kingshill, VI 00850. (daryl.richards@uvi.edu)
- 41G) Evaluating Waterlogging Stress on the Morphological and Gas Exchange Parameters of Cowpea (*Vigna unguiculata* (L.) Walp.) Genotypes Under Field Conditions.** Omolayo J. Olorunwa<sup>\*</sup>, Bikash Adhikari, and T. Casey Barickman, Department of Plant and Soil Sciences, Mississippi State University, North Mississippi Research and Extension Center, Verona, MS, 38879. (ojo26@msstate.edu)
- 42) V Evaluation of Specialty Pumpkin Varieties in Arkansas.** Drew E. Kirkpatrick<sup>1\*</sup>, Matthew B. Bertucci<sup>1</sup>, Jeremie Kouame<sup>2</sup>, Kayla Knepp<sup>1</sup>, Rachel C. Woody-Pumford<sup>1</sup>, Jonathan M.



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- 43G) Aeroponic production of lettuce promotes biomass and root growth in comparison to hydroponic production methods.** Kamron Newberry, Vikram Baliga, and Catherine Simpson, Department of Plant and Soil Science, Texas Tech University, Lubbock, TX 79409 (Kamron.Newberry@ttu.edu)
- 44G) Photosynthetic Efficiency, Chlorophyll Fluorescence, and CO<sub>2</sub> Responses of Net Assimilation are Impacted by Seed Priming and Salt Stress in Lettuce (*Lactuca sativa* L.).** Bikash Adhikari\*, Omolayo J. Olorunwa, and T. Casey Barickman, Department of Plant and Soil Sciences, Mississippi State University, North Mississippi Research and Extension Center, Verona, MS, 38879. (ba917@msstate.edu)
- 45) Influence of potting and soil type on quality and yield of muskmelons in the U.S. Virgin Islands.** Jessica Ewer<sup>1\*</sup>, Thomas W. Zimmerman<sup>1</sup>, and Henry O. Awika<sup>1,2</sup>. <sup>1</sup>School of Agriculture, Agricultural Experiment Station, University of the Virgin Islands, 10,000, Kingshill, VI 00850. <sup>2</sup>School of Agriculture, Cooperative Extension Service, University of the Virgin Islands, 10,000, Kingshill, VI 00850. (Jessica.ewer@uvi.edu)
- 46G) Impacts of Carbamazepine Rates on Lettuce (*Lactuca sativa* var. *capitata*) Growth in Hydroponics Systems.** Emily Stamm<sup>\*1</sup>, Clinton Williams<sup>2</sup>, Cade Coldren<sup>1</sup>, Catherine Simpson<sup>1</sup>, Department of Plant and Soil Science, Texas Tech University, Lubbock, TX 79409, 2US Arid-Land Agricultural Research Center, 21881 North Cardon Lane, Maricopa, AZ 85138. (emstamm@ttu.edu)
- 47UG) The Effects of Salinity on Broccoli (*Brassica oleraceae*) and Purslane (*Portulaca oleracea*) Microgreens.** Gretchen Plocek\* and Catherine Simpson, Department of Plant and Soil Sciences, Texas Tech University, Lubbock, TX 79409. (gplocek@ttu.edu)
- 48G) Effects of Se on growth and physiochemical properties in hydroponically produced Indian Mustard (*Brassica juncea* cv. Red Giant): Savannah.** Cognasi<sup>\*1</sup>, Matthew Siebecker<sup>1</sup>, Clinton Williams<sup>2</sup>, and Catherine Simpson<sup>1</sup> <sup>1</sup>Department of Plant and Soil Science, Texas Tech University, Lubbock, TX 79409, <sup>2</sup>US Arid-Land Agricultural Research Center, Maricopa, AZ 85138. (savannah.cognasi@ttu.edu)
- 49) Influence of Sweetpotato Spacing on Yield in the Virgin Islands.** Samuel Joseph\* and Thomas W. Zimmerman, Agricultural Experiment Station, University of the Virgin Islands, 10,000 Castle Burke, Kingshill, VI 00850. (tzimmer@uvi.edu)
- 50G) Effect of different colored shade nets on quality and growth of hydroponic lettuce and basil.** Harpreet Singh\*, Bruce L. Dunn. Department of Horticulture and Landscape Architecture, Oklahoma State University, Stillwater, OK 74075 (harpreet.singh11@okstate.edu)
- 51) Organoleptic Attributes of Best Adapted Strawberry Cultivars for Alabama.** Edgar Vinson<sup>\*1</sup>, P. Perkins-Veazie<sup>2</sup>, Elina Coneva<sup>1</sup>, and M. Price<sup>3</sup>. <sup>1</sup>Department of Horticulture, Auburn University, 101 Funchess Hall, Auburn, AL 36849. <sup>2</sup>600 N.C. State University, Laureate Way, Kannapolis, NC 28081. <sup>3</sup>Chilton Research and Extension Center, 120 County Road 756, Clanton, AL 35045, (vinsoed@auburn.edu)
- 52G) Elevated Levels of Iron Influences Physiological Performance, Yield, and Soluble Sugar and Phytonutrient Concentrations of Lettuce (*Lactuca sativa* L.).** Travis Blanche\*, Bikash Adhikari, Thomas Horgan, Jeff Wilson, and T. Casey Barickman. Department of Plant and Soil Sciences, Mississippi State University, North Mississippi Research and Extension Center, Verona, MS, 38879. (jtb804@msstate.edu)
- 53G) Hydrogen Peroxide (H<sub>2</sub>O<sub>2</sub>) Effects on Lettuce, Basil, and Algae in an Ebb and Flow Hydroponic System.** Teal Hendrickson\* and Bruce Dunn. 358 Ag Hall, Department of Horticulture and Landscape Architecture, Stillwater, OK 74078 (teal.hendrickson@okstate.edu)
- 54) Plant Growth and Yield and Incidence of Tomato Yellow Leaf Curl Virus in Tomato Cultivars.** Diaz-Perez, Juan C.<sup>1</sup>, Calob Guerra<sup>1</sup>, and Sudeep Bag<sup>2</sup>, <sup>1</sup>Department of Horticulture and <sup>2</sup>Department of Plant Pathology, University of Georgia, Tifton Campus, Tifton, GA 31793 (jcdiaz@uga.edu).
- 55G) Seed Priming and Salt Stress Impacts Germination, Phenotypic Traits, and Biomass Accumulation of Lettuce (*Lactuca sativa* L.).** Bikash Adhikari\*, Omolayo J. Olorunwa, Thomas Horgan, and T. Casey Barickman, Department of Plant and Soil Sciences, Mississippi State



University, North Mississippi Research and Extension Center, Verona, MS, 38879. (ba917@msstate.edu)

**56) Spring Fresh Market Brussel Sprouts Variety Trial in Oklahoma.** Bizhen Hu<sup>2</sup>, Izzy Gonzales<sup>1\*</sup>, Lynn Brandenberger<sup>2</sup>, and Matthew Beartrack<sup>2</sup>, <sup>1</sup>Department of Environmental Science, Oklahoma State University, Stillwater, OK 74078, <sup>2</sup>Department of Horticulture and Landscape Architecture, Oklahoma State University, Stillwater, OK 74078. (bizhen.hu@okstate.edu)

**57UG) Seedless Watermelon Variety Trial Grown in Arkansas.** Rachel C. Woody-Pumford<sup>1\*</sup>, Matthew B. Bertucci<sup>1</sup>, Drew Kirkpatrick<sup>1</sup>, Darrin G. Henderson<sup>2</sup>, and Kayla Knepp<sup>1</sup>, <sup>1</sup>Department of Horticulture, University of Arkansas, Fayetteville, AR 72701, <sup>2</sup>University of Arkansas Division of Agriculture Research & Extension, Huntsville, AR 72740. (rxw025@uark.edu)

**58G) Functional Roles of Diverse Colored Sweetpotatoes Varieties (*Ipomoea batatas* L.) and its Tops.** Kaitlyn Hapke\*, and Islam, S<sup>1</sup> Department of Agriculture / Agricultural Regulations, University of Arkansas at Pine Bluff, 148 Woodard Hall, 1200 North University Drive, Mail Slot 4913, Pine Bluff, AR 71601 (islams@uapb.edu)

### Cross-Commodity

**59) A Survey on Growers' Awareness Related to On-Farm Food Safety and Conservation Practices in the Southeastern United States.** Camila Rodrigues<sup>\*1</sup>, Kristin Woods<sup>2</sup>, Laurel Dunn<sup>3</sup>. <sup>1</sup>Department of Horticulture, Auburn University, Auburn, AL 36849 (crodrigues@auburn.edu), <sup>2</sup>Alabama Cooperative Extension System, Auburn University, Auburn, AL 36049, <sup>3</sup>Department of Food Science & Technology, University of Georgia, Athens, GA 30602.

**60G) Plant Selection for Floating Treatment Wetlands in Brackish Waters.** Andrea C. Landaverde<sup>1\*</sup>, Sarah A. White<sup>2</sup>, and William H.J. Strosnider<sup>3</sup>, <sup>1</sup>Department of Biological Sciences, Clemson University, Clemson, SC 29631, <sup>2</sup>Department of Plant and Environmental Sciences, Clemson University, Clemson, SC 29631, <sup>3</sup>Baruch Marine Field Laboratory, University of South Carolina, Georgetown, SC 29440. (alandav@clemson.edu)

**61) Impact of preplant fumigation with Pic-Clor 60 on hemp yields in Georgia.** Timothy Coolong\*,

Amanda Marabesi, and Noelle Joy, Department of Horticulture, University of Georgia, Athens, GA 30602. (tcoolong@uga.edu)

**62) Influence of soil temperature on plant available nitrogen from organic fertilizers.** Hanna de Jesus<sup>\*1</sup> Kate Cassity-Duffey<sup>1</sup>, Miguel Cabrera<sup>2</sup>, Andre da Silva<sup>3</sup>, Bhabesh Dutta<sup>4</sup>, and Timothy Coolong<sup>1</sup>, <sup>1</sup>1111 Miller Plant Sciences, University of Georgia, Athens, GA 30602, <sup>2</sup>4119 Plant Sciences Bldg., University of Georgia, Athens, GA 30602, <sup>3</sup>124 Funchess Hall, Auburn University, Auburn, AL 36849, <sup>4</sup>2360 Rainwater Rd., University of Georgia, Tifton, GA 31793. (tcoolong@uga.edu)

**63) Screening of 28 Hemp Varieties and Analysis of Spatial Distribution and Seasonal Development of Cannabinoids.** Kaylee Deynzer\*, Gerald Myers, Kathryn Fontenot, Heather Kirk-Ballard, Department of Horticulture, Louisiana State University, Baton Rouge, LA 70803.

**64UG) Influence of Flue Gas Desulfurization Gypsum on Phosphorus Loss in Pine Bark Substrates.** Landon Erbrick<sup>1\*</sup>, Paul Bartley<sup>1</sup>, Dexter Watts<sup>2</sup>, Allen Torbert<sup>2</sup>, <sup>1</sup>101 Funchess Hall, Department of Horticulture, Auburn University, AL 36849. <sup>2</sup>USDA-ARS National Soil Dynamics Laboratory, Auburn, AL 36832. (pcb0004@auburn.edu)

**65) Pollinating the Field to Achieve the Yield; Program for Native Habitat On-Farm Assistance.** Olivia Fuller<sup>\*1</sup>, Camila Rodrigues<sup>2</sup>, Kristin Woods<sup>1</sup>, Ayanava Mujumdar<sup>1</sup>. <sup>1</sup>Alabama Cooperative Extension System, Auburn University, Auburn, AL 36049, <sup>2</sup>Department of Horticulture, Auburn University, Auburn, AL 36849.

**66) Eggplant Biomass is Significantly Higher in Composted Spent Coffee Grounds than Non-Composted Spent Coffee Grounds Across All Treatments, But Not Basil Biomass.** Amanda L. Birnbaum<sup>1\*</sup>, Benjamin G. Wherley<sup>2</sup>, David W. Reed<sup>1</sup>, <sup>1</sup>Horticultural Sciences, Texas A&M University, College Station, TX 77843-2133, <sup>2</sup>Soil and Crop Sciences Texas A&M University, College Station, TX 77843-2133. (abirnbaum@tamu.edu)

### Extension

**67) Making a Difference: K-State Garden Hour Webinar Series Improves Lives.** Cheryl R. Boyer<sup>1\*</sup>, Matthew McKernan<sup>2</sup>, and Russell P. Boyer<sup>3</sup>. <sup>1</sup>1712 Claflin Rd., Department of

Horticulture and Natural Resources, Kansas State University, Manhattan, KS 66506, <sup>2</sup>7001 W. 21<sup>st</sup> St. N., K-State Research and Extension Sedgwick County, Wichita, KS 67205, <sup>3</sup>1301 Lovers Lane, Department of Management, Kansas State University, Manhattan, KS 66506. (crboyer@k-state.edu).

## Addendum

**68G) Use of High Nitrate, Deammonified Water for Nursery Production of Summer Annuals.** Castillo, Pedro, Taryn Bazhaw, Michaela Bledsoe, and Derald A. Harp. Texas A&M University-Commerce, Commerce, TX 75429 (Derald.Harp@leomail.tamuc.edu)

**69G) Nectar Quantity and Quality in Perennials Common to North Texas Landscapes.** Kara Bailey\* and Derald A. Harp. Texas A&M University-Commerce, Commerce, TX 75429 (Derald.Harp@leomail.tamuc.edu)

**70G) Micronutrient distribution in various organs of HLB-affected grapefruit grown on Florida flatwood soils.** Lukas Hallman<sup>1,\*</sup>, Davie Kadyampakeni<sup>2</sup>, Alan Wright<sup>3</sup>, Evan Johnson<sup>4</sup> and Lorenzo Rossi<sup>1</sup>. <sup>1</sup>Horticultural Sciences Department, University of Florida, IFAS, Indian River Research and Education Center, Fort Pierce, FL; <sup>2</sup>Soil and Water Sciences Department, University of Florida, IFAS, Citrus Research and Education Center, Lake Alfred, FL. <sup>3</sup>Soil and Water Sciences Department, University of Florida, IFAS, Indian River Research and Education Center, Fort Pierce, FL; <sup>4</sup>Plant Pathology Department, University of Florida, IFAS, Citrus Research and Education Center, Lake Alfred, FL. \*(l.rossi@ufl.edu)

## SECTION TITLES

### EDUCATION

**Room:** Napoleon C2

**Presiding:** Garry McDonald, Chair Education

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

**8:00 Putting the Meta in Metasequoia: Horticulture for a Virtual Environment.** Lucy K. Bradley<sup>1,\*</sup>, Laura Barth<sup>1</sup>, Christine Bradish<sup>1</sup>, Susan Caldwell<sup>2</sup>, Lauren Campbell<sup>2</sup>, Matthew Ross<sup>2</sup>, and Matthew Thomas<sup>2</sup>, <sup>1</sup>NC State University Department

of Horticultural Science, Box 7609, Raleigh, NC 27695, <sup>2</sup>Longwood Gardens Department of Continuing Education, 1001 Longwood Rd., Kennett Square, PA 19348 (Lucy\_Bradley@ncsu.edu)

**8:15 What does trace data tell us about student' self-regulated learning ability?** Dan Ye<sup>1</sup>, Bodie Pennisi<sup>2,\*</sup>, and Lloyd Rieber<sup>3</sup>, <sup>1</sup>Michigan Tech University, William G. Jackson Center for Teaching and Learning, Houghton, MI, 49931, <sup>2</sup>Department of Horticulture, University of Georgia Griffin-Campus, Griffin, GA 30223, <sup>3</sup>College of Education, University of Georgia-Athens, Athens, GA 30602, (bpennisi@uga.edu)

### EXTENSION

**Room:** Napoleon C2

**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@uada.edu

**8:30 Expanding Training Opportunities for Therapeutic Horticulture with Online Learning: A Partnership between North Carolina Botanical Garden and NC State Extension Gardener.** Sally Haskett<sup>1</sup> Christine Bradish<sup>2,\*</sup>, Alta Zhang<sup>3</sup>, Emilee Weaver<sup>4</sup>, Joanna Massey Lelekacs<sup>1</sup>, and Lucy Bradley<sup>2</sup>, <sup>1</sup>North Carolina Botanical Garden, University of North Carolina at Chapel Hill, <sup>2</sup>Department of Horticultural Science, North Carolina State University, <sup>3</sup>Extension Information Technology, North Carolina State University, <sup>4</sup>NC Central Regional State Psychiatric Hospital. (cmbradis@ncsu.edu)

**8:45 Establishing the Arkansas Quality Wine Program.** Renee T. Threlfall<sup>1,\*</sup>, Amanda J. Fleming<sup>1</sup>, and Amanda L. McWhirt<sup>2</sup>, <sup>1</sup>2650 N. Young Avenue, Food Science Department, University of Arkansas, Fayetteville, AR 72704, <sup>2</sup>2301 S. University Ave., Cooperative Extension Service, University of Arkansas, Little Rock, AR 72204. (rthrelf@uark.edu)

**9:00 A Nationwide Survey of Grower Extension Needs Associated with Soilless Substrate Adoption.** Alexa J. Lamm<sup>1</sup>, Kristin E. Gibson<sup>1,\*</sup>, Kevan W. Lamm<sup>1</sup>, Jeb S. Fields<sup>2</sup>, and James Owen<sup>3</sup>, <sup>1</sup>132 Four Towers, Department of Agricultural Leadership,

Education and Communication, University of Georgia, Athens, GA 30602, <sup>2</sup>21549 Old Covington Highway, Hammond Research Station, Louisiana State University, Hammond, LA 70403, <sup>3</sup>1680 Madison Ave., Agricultural Engineering Building, USDA ARS, Wooster, OH 44691. (alammm@uga.edu)

**9:15 Informed Decision-making or Guesswork? Examining How Residents Adjust Their Irrigation Based on Local Rainfall.** Colby Silvert<sup>1\*</sup>, Cody Gusto<sup>1</sup>, John Diaz<sup>1</sup>, Laura Warner<sup>1</sup>, and Robin Grantham<sup>2</sup>, <sup>1</sup>Department of Agricultural Education & Communication, University of Florida, 305 Rolfs Hall, PO Box 110540, Gainesville, FL 32611-0690, <sup>2</sup>Southwest Florida Water Management District, 2379 Broad Street, Brooksville, FL 34604. (colby.silvert@ufl.edu)

**9:30 Integrated Extension Approaches to Support Small-Scale Hops Production in Arkansas.** Lizzy Herrera <sup>1\*</sup>, Amanda McWhirt<sup>1</sup>, Renee Threlfall<sup>2</sup>, Aaron Cato<sup>1</sup>, Sarah Cato<sup>1</sup>, and James McClellan<sup>3</sup>, <sup>1</sup>2301 S. University Ave, Department of Horticulture, University of Arkansas System Division of Agriculture, Little Rock, AR 72204, <sup>2</sup>2435 N. Hatch Ave., Department of Food Science, University of Arkansas System Division of Agriculture, Fayetteville, AR 72704, <sup>3</sup>1749 State Hwy 818, Arkansas Agricultural Experiment Station Fruit Research Station, Clarksville, AR 72830. (lherrera@uada.edu)

**9:45 Helping Small Farmers Transition to Federal Hemp Regulations.** Sanjun Gu\* and Randy Fulk, Cooperative Extension, North Carolina A&T State University, Greensboro, NC 27411. (sgu@ncat.edu)

#### 10:00 Break

**10:15 A Conversation with Growers: Exploring Soilless Substrate Adoption to Inform Extension Program Development.** Alexa J. Lamm<sup>1\*</sup>, Kevan. W. Lamm<sup>1</sup>, Kristin E. Gibson<sup>1</sup>, Jeb S. Fields<sup>2</sup>, and James Owen<sup>3</sup>, <sup>1</sup>132 Four Towers, Department of Agricultural Leadership, Education and Communication, University of Georgia, Athens, GA 30602, <sup>2</sup>21549 Old Covington Highway, Hammond Research Station, Louisiana State University, Hammond, LA 70403, <sup>3</sup>1680 Madison Ave., Agricultural Engineering Building, USDA ARS, Wooster,

OH 44691. (alammm@uga.edu)

**10:30 A Perspective on Tweeting.** Eric T. Stafne\*, Coastal Research and Extension Center, Mississippi State University, Poplarville, MS 39470. (eric.stafne@msstate.edu)

**10:45 Assessing the Effectiveness of Webinars for Training Growers & Cooperative Extension Agents in Small Fruit Production.** Sarah Cato<sup>1</sup>, Amanda McWhirt<sup>1\*</sup>, Lizzy Herrera<sup>1</sup>, Aaron Cato<sup>1</sup> and Mary Poling<sup>2</sup>, <sup>1</sup>2301 S. University Ave., Department of Horticulture, University of Arkansas System Divisions of Agriculture, Cooperative Extension Service, Little Rock, AR 72204, <sup>2</sup>2301 S. University Ave., Department of Information Technology, University of Arkansas System Division of Agriculture Cooperative Extension Service, Little Rock, AR 72204. (amcwhirt@uada.edu)

**11:00 NC A&T Plasticulture Publications and Resources for Small Farmers.** Randy Fulk\* and Sanjun Gu, Cooperative Extension at North Carolina Agricultural and Technical State University, Greensboro, NC 27419. (rafulk@ncat.edu)

**11:15 “I Want to Be a Contributor”:** **Perceptions, Barriers, and Strategies Surrounding Residential Pollinator Gardening.** Cody Gusto<sup>1\*</sup>, Colby Silvert<sup>1</sup>, John Diaz<sup>1</sup>, Laura A. Warner<sup>1</sup>, and Rachel Mallinger<sup>2</sup>, <sup>1</sup>Department of Agricultural Education & Communication, 411 Rolfs Hall, 341 Buckman Dr., University of Florida, Gainesville, FL 32611-0690, <sup>2</sup>Entomology and Nematology Department, University of Florida, Steinmetz Hall, 1881 Natural Area Dr., Gainesville, FL 32611-0690. (cgusto@ufl.edu)

**11:30 Industry Certification Post-Pandemic.** Bodie Pennisi<sup>1\*</sup> and Greg Huber<sup>2</sup>, <sup>1</sup>Department of Horticulture, University of Georgia Griffin-Campus, Griffin, GA 30223, <sup>2</sup>Center for Urban Agriculture, University of Georgia Griffin-Campus, Griffin, GA 30223. (bpennisi@uga.edu)

**11:45 Utilizing Statewide Cooperative Extension Agent Demonstrations to Enhance Specialty Crop Recommendations.** Aaron Cato\* and Amanda McWhirt, 2301 S. University Ave., Department of Horticulture, University of Arkansas System Division of

Agriculture, Little Rock, AR 72204.  
(acato@uada.edu)

**12:00 How Alabama Extension Commercial Horticulture Program Team utilized social media and evaluation metrics for virtual event planning during and post- COVID-19 pandemic.**

Ayanava Majumdar<sup>1\*</sup>, Ann Chambliss<sup>1</sup>, Harli Willis<sup>1</sup>, Edward Sikora<sup>1</sup>, Katelyn Kesheimer<sup>1</sup>, Jeremy Pickens<sup>2</sup>, Edgar Vinson<sup>3</sup>, Elina Coneva<sup>4</sup>, Joe Kemble<sup>4</sup>, Andre da Silva<sup>4</sup>, David Han<sup>5</sup>, Rishi Prasad<sup>5</sup>, Audrey Gamble<sup>5</sup>, Steve Li<sup>5</sup>, Adam Rabinowitz<sup>6</sup>, Jim Jacobi<sup>7</sup>, Kassie Conner<sup>8</sup>, Sonja Thomas<sup>9</sup>, and Matt Ulmer<sup>10</sup>, <sup>1</sup>Department of Entomology and Plant Pathology, Auburn University, Auburn, AL, 36849, <sup>2</sup>Ornamental Horticulture Research Center, PO Box 8276, Mobile, AL 36689, <sup>3</sup>Chilton Regional Research and Extension Center, 120 County Road 756, Clanton, AL 35045, <sup>4</sup>Department of Horticulture, Auburn University, Auburn, AL 36849, <sup>5</sup>Department of Crop, Soil, and Environmental Sciences, Auburn University, Auburn, AL 36849, <sup>6</sup>Department of Agricultural Economics and Rural Sociology, Auburn University, Auburn, AL 36849, <sup>7</sup>C. Beaty Hanna Horticulture and Environmental Center, 2612 Lane Park Road Birmingham, AL 35223, <sup>8</sup>Plant Diagnostic Center, 143 ALFA Building, Auburn University, Auburn, AL 36849, <sup>9</sup>245 E Duncan Hall, Auburn University, Auburn, AL 36849, <sup>10</sup>105 Duncan Hall, Auburn University, Auburn, AL 36849. (azm0024@auburn.edu)

**12:15 Lunch Break**

**1:00 Strategic Planning for Georgia's Extension Master Gardener Program: Environmental Attitudes as a Measure of Commitment Among Generations.**

Sheri Dorn<sup>1\*</sup>, Paul Pugliese<sup>2</sup>, Joel Burnsed<sup>3</sup>, Timothy Daly<sup>4</sup>, Cynthia McCrary<sup>5</sup>, and Kathy Hensley<sup>6</sup>, <sup>1</sup>1109 Experiment Street, Department of Horticulture, University of Georgia, Griffin, GA 30223, <sup>2</sup>University of Georgia Extension, Bartow County, 320 West Cherokee Avenue Room 112 Cartersville, GA 30120-3059, <sup>3</sup>University of Georgia Extension, Walton County, 100 North Broad St. Monroe, GA 30655, <sup>4</sup>University of Georgia Extension, Gwinnett County, 750 South Perry Street, Suite 400 Lawrenceville, GA 30046-4804, <sup>5</sup>University of Georgia Extension, Fayette County, 140

Stonewall Avenue W Suite 209 Fayetteville, GA 30214-1520, <sup>6</sup>University of Georgia Extension, Bibb County, 145 First Street Macon, GA 31201-2627. (sdorn@uga.edu)

**1:15 Horticulture CSI: Long Beach Radish Case Closed.**

Gary R. Bachman<sup>1\*</sup>, Christine E.H. Coker<sup>1</sup> and Patricia R. Knight<sup>2</sup>, <sup>1</sup>Coastal Research and Extension Center, Mississippi State University, 1815 Popps Ferry Road, Biloxi, MS 38532, <sup>2</sup>Coastal Horticulture Research, South Mississippi Branch Station, Poplarville, MS (gary.bachman@msstate.edu)

**1:30 Extension Gardener Plant Toolbox: Reaching Wider Audiences through National Partnerships.**

Lucy K. Bradley<sup>1\*</sup>, Kathleen A. Moore<sup>1</sup>, Matthew P. Ross<sup>2</sup>, Andy Pulte<sup>3</sup>, Grant L. Thompson<sup>4</sup>, Ryan Contreras<sup>5</sup>, Laura Barth<sup>1</sup>, and Lis Meyer<sup>1</sup>, <sup>1</sup>Department of Horticulture, North Carolina State University, 2721 Founders Dr., Raleigh, NC 27695, <sup>2</sup>Longwood Gardens 1001 Longwood Rd., Kennett Square, PA 19348, <sup>3</sup>Department of Plant Science, University of Tennessee Institute of Agriculture, 2505 E J Chapman Dr., Knoxville, TN 37996, <sup>4</sup>Department of Horticulture, Iowa State University, 137 Horticulture Hall, Ames, IA 50011, <sup>5</sup>Agriculture & Life Sciences, Oregon State University, 4017 Agriculture & Life Sciences, Corvallis, OR 97331. (lucy\_bradley@ncsu.edu)

**1:45 Multi-state Extension Publication Series Highlights the Benefits of Consumer Horticulture to Society and Provides Basis for Further Education Efforts.**

Heather Kirk-Ballard<sup>1\*</sup>, Natalie R. Bumgarner<sup>2</sup>, Ellen M. Bauske<sup>3</sup>, Pam J. Bennett<sup>4</sup>, David D. Close<sup>5</sup>, Sheri Dorn<sup>3</sup>, Richard E. Durham<sup>6</sup>, Carl I. Evensen<sup>7</sup>, Terri James<sup>8</sup>, Jeff S. Keuhny<sup>1</sup>, Bodie Pennisi<sup>3</sup>, Robert F. Polomski<sup>9</sup>, Kerry Smith<sup>10</sup>, and Katie Walberg<sup>2</sup>, <sup>1</sup>School of Plant, Environmental, and Soil Sciences, Louisiana State University, Baton Rouge, LA 70803, <sup>2</sup>Plant Sciences Department, University of Tennessee, Knoxville, TN 37996, <sup>3</sup>Department of Horticulture, University of Georgia, Griffin, GA 30223, <sup>4</sup>The Ohio State University, Springfield, OH 45505, <sup>5</sup>School of Plant & Environmental Sciences, Virginia Tech University, Blacksburg, VA 24061, <sup>6</sup>Department of Horticulture, University of

Kentucky, Lexington, KY 40546,  
<sup>7</sup>Department of Natural Resources and Environmental Management, University of Hawai'i at Manoa, Honolulu, HI 96822,  
<sup>8</sup>Department of Agronomy & Horticulture, University of Nebraska-Lincoln, Lincoln, NE 68583,  
<sup>9</sup>Department of Plant and Environmental Sciences, Clemson University, Clemson, SC 29634,  
<sup>10</sup>Alabama Cooperative Extension System, Auburn University, Auburn University, AL 36849. (hkirkballard@agcenter.lsu.edu)

**2:00 County Fair Grounds as Food Innovation Hubs in Arkansas Despite the Pandemic.**

Amanda Philyaw Perez<sup>1\*</sup>, Renee Threlfall<sup>2</sup>, Ruben Morawicki<sup>2</sup>, Angela Gardner<sup>1</sup>, and Mallory Eggleton<sup>1</sup>, <sup>1</sup>2301 S. University Ave, Department of Horticulture, University of Arkansas Cooperative Extension Service, Little Rock, AR 72204, 22650 Young Ave.,  
<sup>2</sup>Department of Food Science, University of Arkansas Division of Agriculture, Fayetteville, AR, 72704. (aperez@uada.edu)

**2:15 Creating a Campus-wide Student Community Garden.**

Kathryn K. Fontenot\* and Edward W. Bush, School of Plant, Environmental, and Soil Sciences, LSU AgCenter, Baton Rouge, LA 70803. (kkfontenot@agcenter.lsu.edu)

**2:30 Commercial Nursery Hurricane Guide.**

Tom Yeager<sup>1\*</sup> and Michael Gavazzi<sup>2</sup>,  
<sup>1</sup>Department of Environmental Horticulture, University of Florida, IFAS, Gainesville, FL 32611,  
<sup>2</sup> USDA Forest Service, Southern Research Station, Southeast Climate Hub, Research Triangle Park, NC 27709. (yeagert@ufl.edu)

**2:45 Extension Gardener: Horticulture Training Made Easy through an Online Customizable Tool.**

Lucy K. Bradley\*, and Kathleen A. Moore, Department of Horticulture, North Carolina State University, 2721 Founders Dr., Raleigh, NC 27695. (lucy\_bradley@ncsu.edu)

**3:00 Break**

**3:15 Hammond Trials: A Trial Garden's Perspective on Virtual Extension.**

Jeb S. Fields\*, Ashley Edwards, Maureen Thiessen, and Jason Stagg, Hammond Research Station, Louisiana State University Agricultural Center, Hammond, LA 70403. (JSFields@agcenter.lsu.edu)

**3:30 Changes in Consumer Purchasing Behavior of Fresh Fruits and Vegetables During the COVID-19 Pandemic.**

Lauri M. Baker<sup>1\*</sup>, Hikaru H. Peterson<sup>2</sup>, and Cheryl R. Boyer<sup>3</sup>, <sup>1</sup>1408 Sabal Palm Drive, Level 2, Department of Agricultural Education and Communication, University of Florida, Gainesville, FL 32611,  
<sup>2</sup>1994 Buford Ave., Department of Applied Economics, University of Minnesota, St. Paul, MN 55108,  
<sup>3</sup>1712 Claflin Rd., Department of Horticulture and Natural Resources, Kansas State University, Manhattan, KS 66506. (lauri.m.baker@ufl.edu).

**3:45 Farm to School Directly Benefits Local and Regional Food Systems.**

Carl Motsenbocker\*, Crystal Besse, Denyse Cummins, Jacey Wesley, and Alessandro Holzapfel, School of Plant, Environmental and Soil Sciences, LSU AgCenter, Baton Rouge, LA 70803. (cmotsenbocker@agcenter.lsu.edu)

**4:00 Small On-Farm Sweetpotato (*Ipomoea batatas*) Slip Production for Early Field Planting and Yield Increase in Missouri.**

Ramón Arancibia\*, Juan Cabrera-Garcia, and Patrick Byers, University of Missouri Extension, Columbia, MO. (raa522@missouri.edu)

**4:15 K-State Garden Hour Webinar Series Facilitated Behavior Change and Improved Quality of Life During the COVID-19 Pandemic.**

Cheryl R. Boyer<sup>1\*</sup> and Matthew McKernan<sup>2</sup>, <sup>1</sup>1712 Claflin Rd., Department of Horticulture and Natural Resources, Kansas State University, Manhattan, KS 66506,  
<sup>2</sup>7001 W. 21<sup>st</sup> St. N., K-State Research and Extension Sedgwick County, Wichita, KS 67205. (crboyer@k-state.edu)

**4:30 Twenty Years of the LSU AgCenter's Get It Growing Extension Program - Teaching Louisiana about Gardening through Multi-Media.**

Heather Kirk-Ballard\*, School of Plant, Environmental, and Soil Sciences, Louisiana State University, Baton Rouge, LA 70803. (hkirkballard@agcenter.lsu.edu)

**4:45 Educating Inmates in Horticulture for Post-Release Employment Opportunities.**

Jeff C. Wilson<sup>1\*</sup>, T. Casey Barickman<sup>1</sup>, and Scott Cagle<sup>2</sup>, <sup>1</sup>Mississippi State University, North Mississippi Research & Extension

Center, Verona, MS 38879, <sup>2</sup>Mississippi State University, Former Chickasaw County Extension Agent, Houston, MS 38851.(jeff.wilson@msstate.edu)

## FRUIT CROPS

**Room:** Napoleon B1

**Presiding:** Edgar Vinson, Chair

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

**8:00 'Indulgence' and 'Dazzle' Wine Grapes for the Mid-South.** John R. Clark\*, Renee Threlfall, and Margaret Worthington, Depts. of Horticulture and Food Science, 316 Plant Science, University of Arkansas, Fayetteville, AR 72701. (jrclark@uark.edu)

**8:15 Wine Production of 'Indulgence' and 'Dazzle' Wine Grapes for the Mid-South.** Renee T. Threlfall<sup>1\*</sup>, John R. Clark<sup>2</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, Horticulture Department, University of Arkansas, Fayetteville, AR 72701. (rthrelf@uark.edu)

**8:30 Planting Date Influence on Strawberry Variety Yield and Revenues in Texas.** Russell W. Wallace<sup>1\*</sup>, Peter A. Ampim<sup>2</sup>, D. Thayne Montague<sup>3</sup>, Dale Rankin<sup>4</sup>, and Larry Stein<sup>5</sup>, <sup>1</sup>Department of Horticultural Sciences, Texas A&M AgriLife Extension, 1102 E. Drew St., Lubbock, 79403, <sup>2</sup>Cooperative Agriculture Research Center, MS 2008, CARC Building, Prairie View A&M University, Prairie View, 77446, <sup>3</sup>Department of Plant & Soil Sciences, Texas Tech University and Texas A&M AgriLife Research, Lubbock, 79409, <sup>4</sup>Texas A&M AgriLife Extension, Atascosa County, 25 E. 5<sup>th</sup> St., Leming, and <sup>5</sup>Department of Horticultural Sciences, Texas A&M AgriLife Extension, 1619 Garner Field Rd., Uvalde. (rwwallace@ag.tamu.edu)

**8:45 Performance of Geneva and Vineland Apple Rootstocks in South Carolina.** Gregory L. Reighard\* and David Ouellette. Department of Plant & Environmental Sciences, Clemson University, Clemson, SC 29634-0310. (grghrd@clemson.edu)

**9:00 Fall Row Cover Use and Planting Date**

**Impacts on Crown Size and Yield of Five Strawberry Cultivars.** Amanda McWhirt\*, Lizzy Herrera and Sarah Cato, 2301 S. University Ave., Department of Horticulture, University of Arkansas System Division of Agriculture, Little Rock, AR 72204. (amcwhirt@uada.edu)

**9:15 Assessment of intraspecific compatibility among *Passiflora incarnata* genotypes from different provenances.** Eric T. Stafne\*, Coastal Research and Extension Center, Mississippi State University, Poplarville, MS 39470. (eric.stafne@msstate.edu).

**9:30 Break**

**9:45 Response of Seedling Blackberries Treated with Preemergent Herbicides.** Kayla Knepp<sup>1\*</sup>, Matthew B. Bertucci<sup>1</sup>, Amanda L. Mcwhirt<sup>2</sup>, Nilda R. Burgos<sup>3</sup>, Aaron J. Cato<sup>2</sup>, Drew E. Kirkpatrick<sup>1</sup>, and Rachel C. Woody-Pumford<sup>1</sup>, <sup>1</sup>316 Plant Science, Department of Horticulture, University of Arkansas, Fayetteville, AR 72701, <sup>2</sup>2301 S. University, Department of Horticulture, University of Arkansas Cooperative Extension Service, Little Rock, AR 72204, <sup>3</sup>1354 W Altheimer Drive, Department of Crop, Soil, and Environmental Sciences, University of Arkansas, Fayetteville, AR 72704. (kknepp@uark.edu)

**10:00 Influence of Light Level on Leaf Gas Exchange and Fruit Production of Two Strawberry (*Fragaria* × *ananassa*) Cultivars Grown in Texas.** D. Thayne Montague<sup>1,2\*</sup>, Russell W. Wallace<sup>2</sup>, Peter A. Ampim<sup>3</sup>, Dale Rankin<sup>4</sup>, and Larry Stein<sup>5</sup>, <sup>1</sup>Department of Plant and Soil Science, Texas Tech University, Lubbock, TX 79409, <sup>2</sup>Texas A&M AgriLife Research and Extension Center, Lubbock, TX 79403, <sup>3</sup>Cooperative Agriculture Research Center, Prairie View A&M University, Prairie View, TX 77446, <sup>4</sup>Texas A&M AgriLife Extension, Atascosa County, Leming, TX 78050, <sup>5</sup>Department of Horticultural Sciences, Texas A&M AgriLife Extension, Uvalde, TX 78801. (thayne.montague@ttu.edu)

**10:15 Evaluation of New Grape Cultivars in Texas.** Justin J. Scheiner\* and Fran Pontasch, Department of Horticultural Sciences, Texas A&M AgriLife Extension Service, HSF, 2134 TAMU, College Station, TX 77843. (jscheiner@tamu.edu)



**10:30 A public-private partnership to uncover genetic treasures in Rubus.** Katie Sheehan-Lust\* and Gina Fernandez, Department of Horticultural Science, 260 Kilgore Hall, Campus Box 7609, Raleigh, NC 27695-7609. (kesheeha@ncsu.edu)

**10:45 Effect of Planting Distance on Yield and Fruit Quality of PD Resistant Predominantly Vitis vinifera Grapevine.** Elina Coneva\*, E.L. Vinson, and M. Salazar-Gutierrez, Department of Horticulture, Auburn University, Auburn, AL, 36849. (edc0001@auburn.edu)

**11:00 Evaluation of Size-Controlling, Pest Resistant Peach Rootstocks for Alabama** Elina Coneva, Department of Horticulture, Auburn University, Auburn, AL, 36849. (edc0001@auburn.edu)

#### Addendum

**11:15 The impact of climate variability on small fruit production.** Melba R. Salazar-Gutierrez, 112 Funchess Hall, Department of Horticulture, Auburn University, Alabama 36849 (mrs0146@auburn.edu)

## VEGETABLE CROPS

**Room:** Napoleon B1

**Presiding:** Joe Masabni, Chair

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

**1:00 An Evaluation of Commercial Cucurbit Crops in Alabama during the Whitefly Season.** Andre da Silva<sup>1\*</sup>, Olivia Fuller<sup>2</sup>, Ayanava Majundar<sup>3</sup>, Edward Sikora<sup>3</sup>, and Alvin Simmons<sup>4</sup>, <sup>1</sup>Department of Horticulture, Auburn University, Auburn, AL 36849, <sup>2</sup>Tuscaloosa Co. Extension Office, Tuscaloosa, AL 35401, <sup>3</sup>Department Entomology and Plant Pathology, Auburn, AL 36849. <sup>4</sup>USDA - Vegetable Research, Charleston, SC 29414. (azb0207@auburn.edu)

**1:15 Use of Mulching Systems for Hop Production in the Environmental Conditions of Alabama.** Andre da Silva<sup>1\*</sup>, Michael Phillips<sup>1</sup>, Joe Kemble<sup>1</sup>, and Alex Harkess<sup>2</sup>, <sup>1</sup>Department of Horticulture, Auburn University, Auburn, AL 36849, <sup>2</sup>Department of Soil, Crop, and Environmental Science, Auburn University, Auburn, AL

36849. (azb0207@auburn.edu)

**1:30 Evaluation of Cucurbit Germplasm for Resistance to Whitefly Transmitted Viruses.** Alexander Luckew<sup>1</sup>, Geoffrey Meru<sup>2</sup>, Emily Wang<sup>2</sup>, Rodrick Mwatuwa<sup>2</sup>, Mathews Paret<sup>3</sup>, Renato Carvalho<sup>3</sup>, Melanie Kalischuk<sup>3,7</sup>, Andre Luiz Biscaia Ribeiro da Silva<sup>1,6</sup>, Joara Candian<sup>1</sup>, Bhabesh Dutta<sup>4</sup>, Babu Srinivasan<sup>5</sup>, Saritha Raman Kavalappara<sup>5</sup>, RRD Naga Charan Konakalla<sup>4</sup>, Sudeep Bag<sup>4</sup>, and Cecilia McGregor<sup>1\*</sup>, <sup>1</sup>Department of Horticulture, University of Georgia, Athens, GA 30602, <sup>2</sup>Horticultural Sciences Department, University of Florida, Homestead, FL 33031, <sup>3</sup>Department of Plant Pathology, University of Florida, Quincy, FL 32351, <sup>4</sup>Department of Plant Pathology, University of Georgia, Tifton, GA 31793, <sup>5</sup>Department of Entomology, University of Georgia, Griffin, GA 30223, <sup>6</sup>Department of Horticulture, Auburn University, Auburn AL 36849, <sup>7</sup>Department of Plant Agriculture, University of Guelph, Guelph, Ontario, Canada N1G 2W1. (cmcgre1@uga.edu)

**1:45 Role of Planting Date on Yield in Quality of Auto-Flower and Daylength Sensitive Hemp in Georgia.** Timothy Coolong\* and Noelle Joy, Department of Horticulture, University of Georgia, Athens, GA 30602. (tcoolong@uga.edu)

**2:00 Effects of Irrigation System and Cultivation Method on Productivity of Organically-Grown Broccoli in Georgia.** Kate Cassity-Duffey<sup>1</sup>, Nicholas Basinger<sup>2</sup>, Bhabesh Dutta<sup>3</sup>, and Timothy Coolong<sup>1\*</sup>, <sup>1</sup>Department of Horticulture, University of Georgia, Athens, GA 30602, <sup>2</sup>Crop and Soil Sciences Department, University of Georgia, Athens, GA 30602, <sup>3</sup>Department of Plant Pathology, University of Georgia, Tifton, GA 31793. (tcoolong@uga.edu)

**2:15 Break**

**2:30 Screening of Cowpea (*Vigna unguiculata* (L.) Walp.) Genotypes for Waterlogging Tolerance using Morpho-physiological Traits at the Early Growth Stage.** Omolayo J. Olorunwa<sup>1\*</sup>, Bikash Adhikari<sup>1</sup>, Ainong Shi<sup>2</sup>, and T. Casey Barickman<sup>1</sup>, <sup>1</sup>Department of Plant and Soil Sciences, Mississippi State University, North Mississippi Research and Extension Center, Verona, MS, 38879, <sup>2</sup>Department of Horticulture, University of Arkansas, Fayetteville, AR 72701.

(ojo26@msstate.edu)

- 2:45 Diurnal Fertigation Interval for Effective Hydroponics Nutrients Management in Dutch Bucket Cucumber Production.** Emmanuel Ayipio\* and Daniel E. Wells, Department of Horticulture, Auburn University, Auburn, AL 36849. (eza0035@auburn.edu)
- 3:00 Yield and Fruit Quality of 12 Cherry Tomato Cultivars in High Tunnels.** Sanjun Gu, Peter Coffey\*, John Kimes, and Quincey Moffitt, Cooperative Extension, North Carolina A&T State University, Greensboro, NC 27411. (plcoffey@ncat.edu)
- 3:15 Breeding for Novel Traits in Peppers (*Capsicum* spp.) at Texas A&M.** Kevin Crosby<sup>1\*</sup>, Daniel Leskovar<sup>2</sup>, and John Jifon<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, Uvalde, TX 78801, <sup>3</sup>Texas A&M AgriLife Research and Extension Center, Weslaco, TX 78596. (k-crosby@tamu.edu)

## Sunday February 12, 2022

### ACB BUSINESS MEETING

**Room:** Borgne  
**Time:** 9:00 – 10:45  
**Presiding:** Elizabeth Clippard, ACB-President,  
 Nate Philips, ACB Advisor

### ANNUAL BUSINESS MEETING AND AWARDS PROGRAM

**Room:** Borgne  
**Time:** 11:00-12:30  
**Presiding:** Amy Wright, President

### POSTER VIEWING & TAKE-DOWN POSTERS

**Room:** Napoleon Foyer  
**Presiding:** Andre DaSilva, Chair  
**Poster Viewing:** Sunday 8:00-10:45  
**Poster Take-down:** Sunday, 1:00 – 3:00

## SECTION TITLES

### VEGETABLE CROPS

**Room:** Oakley  
**Presiding:** Joe Masabni, Chair  
**Abstracts:** To publish abstract in *HortScience*, see instructions at end of program. Submit on disk at meeting or email to Chair: jmasabni@tamu.edu

- 8:00 Amino Acid Production in Vine Decline Susceptible and Resistant Melon Plants (*Cucumis melo* L) During Plant-Pathogen Interactions.** Sixto A. Marquez<sup>1,5\*</sup>, Carlos A. Avila<sup>1,2</sup>, Amir M.H. Ibrahim<sup>3,5</sup>, Kevin M. Crosby<sup>1,5</sup>, Jashbir Singh<sup>1,5</sup>, Bhimanagouda S. Patil<sup>1,4,5</sup>, and Herika P. Pessoa<sup>1,6</sup>, <sup>1</sup>Vegetable & Fruit Improvement Center, Texas A&M University, College Station, TX 77845, <sup>2</sup>Texas A&M AgriLife Research and Extension Center, Weslaco, TX 78596, <sup>3</sup>Department of Soil and Crop Science, Texas A&M University, College Station, TX 77845, <sup>4</sup>Department of Food Science and Technology, Texas A&M University, College Station, Texas 77843, <sup>5</sup>USDA National Center of Excellence for Melon at the Vegetable and Fruit Improvement Center of Texas A&M University, College Station, TX 77845, <sup>6</sup>Universidade Federal de Viçosa-UFV. Minas Gerais, Brasil. Casa Diogo Alves de Melo Avenida P.H Rolfs, S/N, Campus Universitário. (sixto@tamu.edu)
- 8:15 Using Solid Humic Substances Products as Substrate Amendments to Improve ‘Micro Tom’ Tomato Growth.** Kuan Qin\* and Daniel I. Leskovar, Texas A&M AgriLife Research and Extension Center, Uvalde, TX 78801. (d-leskovar@tamu.edu)
- 8:30 Onion Microflora and Associated Pathogens.** Manzeal Khanal\*, Bed Prakash Bhatta, and Subas Malla, Texas A&M AgriLife Research and Extension Center, Uvalde, TX 78801. (subas.malla@ag.tamu.edu)
- 8:45 Heat Stress Responses of Tomato Plants Grafted onto Wild Relative Rootstocks *S. pennellii* and *S. peruvianum*.** Chungkeun Lee\* and Daniel I. Leskovar, Texas A&M AgriLife Research and Extension Center, Uvalde, TX 78801. (d-leskovar@tamu.edu)

**9:00 Break**

**9:15 Hubbard Squash Trap Crop as Attract-and-Kill Integrated Pest Management Strategy to Reduce Squash Bugs.** Ayanava Majumdar<sup>1\*</sup> and Matthew Price<sup>2</sup>, <sup>1</sup>Department of Entomology and Plant Pathology, Auburn University, Auburn, AL 36849, <sup>2</sup>Chilton Regional Research and Extension Center, Clanton, AL 35045. (azm0024@auburn.edu)

**9:30 Root Zone Cooling and Heating as a Low-Energy Temperature Control in Greenhouse Hydroponic Crop Production.** Genhua Niu\*, Joseph Masabni, Triston Hooks, and Ling Sun. Texas A&M AgriLife Research and Extension Center, Dallas, TX 75252. (genhua.niu@ag.tamu.edu)

**9:45 Identification of Novel Loci Conferring Resistance to Fusarium Wilt Race 3 of Tomato from *Solanum pennellii* Accessions.** Jessica Chitwood-Brown<sup>1\*</sup>, Gary Vallad<sup>2,3</sup>, Tong Geon Lee<sup>1,3,4</sup>, and Samuel Hutton<sup>1,4</sup>, <sup>1</sup>Horticultural Sciences Department, University of Florida, Gainesville, FL 32611, <sup>2</sup>Plant Pathology Department, University of Florida, Gainesville, FL 32611, <sup>3</sup>Gulf Coast Research and Education Center, University of Florida, Wimauma, FL 33598, <sup>4</sup>Plant Molecular and Cellular Biology Graduate Program, University of Florida, Gainesville, FL 32611. (sfhutton@ufl.edu)

**10:00 Evaluating the Impact of Humic Acid Amendments on the Growth Characteristics of Hydroponically Cultivated Kale and Lettuce.** Joshua T. Harvey\* and Daniel I. Leskovar, Texas A&M AgriLife Research and Extension Center, Uvalde, TX 78801. (d-leskovar@tamu.edu)

## FLORICULTURE, ORNAMENALS AND TURF

**Room:** Edgewood A/B

**Presiding:** Genhua Niu, Chair

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

**7:45 Single-screen Fractionation for Simplified Substrate Stratification.** Jeb S. Fields<sup>1\*</sup>, Hammond Research Station, Louisiana State

University Agricultural Center, Hammond, LA 70403. (JSFields@agcenter.lsu.edu)

**8:00 Impact of the mid-February 2021, Record Freeze on a Range of Woody Ornamentals in Texas.** David Creech\*, Lais Machado, and David Kulhavy, Arthur Temple College of Forestry and Agriculture, Stephen F. Austin State University, Nacogdoches, TX 75962. (dcreech@sfasu.edu)

**8:15 Modeling Growth and Development of Hemp (*Cannabis Sativa*) Varieties under Greenhouse and Controlled Environment Conditions.** Alwin Hopf<sup>1\*</sup>, Paul Daiber<sup>1</sup>, Steven Anderson<sup>2</sup>, Brian Pearson<sup>2</sup>, Gerrit Hoogenboom<sup>1,3</sup>, <sup>1</sup>Department of Agricultural and Biological Engineering, IFAS, University of Florida, Gainesville, FL 32611, <sup>2</sup>Department of Environmental Horticulture, Mid-Florida Research and Education Center, IFAS, University of Florida, Apopka, FL 32703, <sup>3</sup>Institute for Sustainable Food Systems, IFAS, University of Florida, Gainesville, FL 32611. (alwinhopf@ufl.edu)

**8:30 Evaluating Effects of Chemical Pinching During Early Vegetative Stages on ‘Sunfinity’ Sunflower for Potted Plant Production.** Mason Marshall<sup>1\*</sup>, Terri Starman<sup>1</sup>, H. Brent Pemberton<sup>2</sup>, Calvin Trostle<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, Overton, TX 75684, <sup>3</sup>Texas A&M AgriLife Research and Extension Center, Lubbock, TX 79403. (masonmarshall@tamu.edu)

**8:45 Improving Pennsylvania Bittercress (*Cardamine pensylvanica*) Weed Control Efficacy with Mulch and Herbicide in Containers.** Ping Yu\* and S. Christopher Marble, Department of Environmental Horticulture, University of Florida, Mid-Florida Research and Education Center, Apopka, FL 32703. (ping.yu@ufl.edu)

**9:00 Piedmont Ecoregion Irrigation Reservoir Water Quality Dynamics Under Stormwater Irrigation Return Flow.** Sarah A. White<sup>1\*</sup>, Morgan Tomlin<sup>1</sup>, Mohammad Nayeb Yazdi<sup>2</sup>, and James S. Owen Jr.<sup>3</sup>, <sup>1</sup>Department of Plant and Environmental Sciences, Clemson University, Clemson, SC, 29634, <sup>2</sup>School of Environment and Natural Resources, Ohio State University, Wooster, OH, 44691, <sup>3</sup>USDA-ARS Application

Technology Research Unit, Wooster, OH, 44691. (swhite4@clemsun.edu)

- 9:15 Build Tools for Crapemyrtle Bark Scale (CMBS) Pest Management.** Bin Wu<sup>1,3</sup>, Runshi Xie<sup>1,3</sup>, Mengmeng Gu<sup>1,2</sup>, and Hongmin Qin<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 Extension Service, College Station, TX 77843, <sup>3</sup>Department of Biology, Texas A&M University, College Station, TX 77843. (hqin@bio.tamu.edu)
- 9:30 Seed Propagation Protocol Development for Brackish Plants.** Morgan Tomlin\*, Sarah White, and Jeffery Adelberg, Department of Plant and Environmental Sciences, Clemson University, Clemson, SC 29634. (mltomli@clemson.edu)
- 9:45 Otomeria oculata S. Moore. A Potential New Annual Bedding Plant?** Garry V. McDonald\*, Austin L. Lindquist, and Ryan W. Dickson, Department of Horticulture, University of Arkansas, Fayetteville, AR 72701. (gmcdonal@uark.edu)
- 10:00 Influence of Controlled-Release Fertilizer and Supplemental Micronutrients on Container-Grown Dogwood.** Anthony Witcher\*, Otis L. Floyd Nursery Research Center, Tennessee State University, McMinnville, TN 37110. (awitcher@tnstate.edu)
- 10:15 Planting Date Affects Container Nitrogen and Phosphorus Leaching.** Tom Yeager\* and Jeff Million, Department of Environmental Horticulture, University of Florida, IFAS, Gainesville, FL 32611. (yeagert@ufl.edu)
- 10:30 Plant Selection for Floating Treatment Wetlands in Brackish Waters.** Andrea C. Landaverde<sup>1\*</sup>, Sarah A. White<sup>2</sup>, and William H.J. Strosnider<sup>3</sup>, <sup>1</sup>Department of Biological Sciences, Clemson University, Clemson, SC 29631, <sup>2</sup>Department of Plant and Environmental Sciences, Clemson University, Clemson, SC 29631, <sup>3</sup>Baruch Marine Field Laboratory, University of South Carolina, Georgetown, SC 29440. (alandav@clemson.edu)
- 10:45 Root Zone Temperatures of ‘Soft Touch’ Holly Affected by Pot Color and Density.** R. Hunter McBrayer, Jeremy M. Pickens\*, Daniel E. Wells, and Jeff L. Sibley,

Department of Horticulture, Auburn University, Auburn, AL 36849. (pickejm@auburn.edu)

## FRUIT CROPS

**Room:** Estherwood

**Presiding:** Edgar Vinson, Chair

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

- 8:00 Survival of Young Kiwifruit (*Actinidia chinensis* Planch. and *A. deliciosa* A. Chev.) Plants in Response to Winter Storm Uri in Texas.** Tim Hartmann<sup>1\*</sup> and David Creech<sup>2</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>2</sup>Department of Horticulture, Auburn University, Auburn, AL 36849. (t-hartmann@tamu.edu)
- 8:15 Evaluation of Trunk Protection Measures for Prevention of Cold Injury in Young Kiwifruit (*Actinidia deliciosa* A. Chev.) Plants.** Tim Hartmann<sup>1\*</sup>, David Creech<sup>2</sup>, and <sup>3</sup>James Spiers <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 Horticulture, Auburn University, Auburn, AL 36849. (t-hartmann@tamu.edu)
- 8:30 Adaptability of Primocane Fruiting Raspberries and Blackberries in the Deep South.** David H. Picha\* and Kathryn K. Fontenot, School of Plant, Environmental and Soil Sciences, Louisiana State University Agricultural Center, Baton Rouge, LA 70803. 8:45 (dpicha@agcenter.lsu.edu)
- 8:45 Effect of Harvest Maturity Stage and Cultivar on Fig Fruit Composition.** David H. Picha\* and Robert A. Mirabello, School of Plant, Environmental and Soil Sciences, Louisiana State University Agricultural Center, Baton Rouge, LA 70803. (dpicha@agcenter.lsu.edu)
- 9:00 Molecular and Physiological Responses of Finger Lime (*Citrus australasica*) to Cold Stress.** Lamiaa Mahmoud and Manjul Dutt\*,



Citrus research and Education Center,  
University of Florida, Lake Alfred, FL,  
33850. (manjul@ufl.edu)

**9:15 Break**

**9:30 Soil management practices for Indian River grapefruit production under citrus greening.** Lorenzo Rossi\*, Lukas M. Hallman, and John M. Santiago. Horticultural Sciences Department, University of Florida, IFAS, Indian River Research and Education Center, Fort Pierce, FL. (l.rossi@ufl.edu)

**9:45 Fungicide Termination Timing in Strawberry with a High Risk of Anthracnose Fruit Rot.** Aaron Cato\*.2301 S. University Ave, Department of Horticulture, University of Arkansas System Division of Agriculture, Little Rock, AR 72204. (acato@uada.edu)

**10:00 Greenhouse evaluation of Kudos 27.5 WDG on vegetative vigor of two recommended peach rootstocks for Florida.** Trequan McGee<sup>1</sup>, Bruce Schaffer<sup>2</sup>, Gerardo Nunez<sup>3</sup>, Jose X. Chaparro<sup>1</sup>, Ali Sarkhosh<sup>1\*</sup>, <sup>1</sup>Horticultural Sciences Department, University of Florida, Gainesville, FL 32611, <sup>2</sup>Tropical Research and Education Center, University of Florida, Homestead, FL 33031

**10:15 Changes to Soil and Tree Status Following Two Years of Annual Municipal Mulch and Poultry Litter Amendments to Peach Orchards.** Brian T. Lawrence\* and Juan Carlos Melgar, 105 Collings St., 218 Biosystems Research Complex, Plant and Environmental Sciences Department, Clemson University, Clemson, SC 29631

**10:30 Influence of rootstock on leaf nutrient content in young low-chill peaches under subtropical climate.** Jonathan Clavijo-Herrera<sup>1\*</sup>, Lorenzo Rossi<sup>2</sup>, and Ali Sarkhosh<sup>1</sup>, <sup>1</sup>Horticultural Sciences Department, University of Florida, Gainesville, FL 32611, <sup>2</sup>Horticultural Sciences Department, University of Florida, Institute of Food and Agricultural Sciences, Indian River Research and Education Center, Ft. Pierce, FL 34945. (luis.clavijo@ufl.edu)

## POSTHARVEST AND BIOTECHNOLOGY

**Room: Napoleon A1**

**Presiding: Savithri Nambeesan, Chair**

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

**8:00 Understanding the diversity of fruit plastids.** Ryan Christian<sup>1</sup>, Eric H Roalson<sup>2</sup>, and Amit Dhingra<sup>1,3\*</sup>. <sup>1</sup>Department of Horticulture, Washington State University, Pullman, WA, <sup>2</sup>School of Biological Sciences, Washington State University, Pullman, WA, <sup>3</sup>Department of Horticultural Sciences, Texas A&M University, College Station, TX, amit.dhingra@ag.tamu.edu

**8:15 Beyond Ethylene – AOX-mediated Fruit Ripening.** Seanna Hewitt<sup>1</sup>, Evan Stowe<sup>1</sup>, and Amit Dhingra<sup>1,2\*</sup>. <sup>1</sup>Department of Horticulture, Washington State University, Pullman, WA 99164, <sup>2</sup>Department of Horticultural Sciences, Texas A&M University, College Station, TX 77843, amit.dhingra@ag.tamu.edu

**8:30 Effect of Preharvest Applications of Ethylene Related PGRs on Postharvest Fruit Quality Attributes in Blueberries.** Tej Acharya\*, Anish Malladi, John W. Doyle, Savithri U. Nambeesan, Department of Horticulture, University of Georgia, Athens, GA 30606. (htpa@uga.edu)

**8:45 Offseason Lettuce Production in Field and Hydroponic Environments: Impact on Sesquiterpene Lactone and Sugar Content.** Niels Maness\*, John Untershuetz, Mason McLemore, and Bizhen Hu, Department of Horticulture and Landscape Architecture, Oklahoma State University, Stillwater, OK 74078. (niels.maness@okstate.edu)

**9:00 Evaluation of Macroporous Resins for Podophyllotoxin Purification from Eastern Red Cedar Extracts.** Gwen Reilly\*<sup>1</sup>, Niels Maness<sup>2</sup>, John Nickel<sup>2</sup>, and Katie Stenmark<sup>2</sup>, <sup>1</sup>Department of Nutritional Sciences, <sup>2</sup>Department of Horticulture and Landscape Architecture, Oklahoma State University, Stillwater, OK 74078. (greilly@okstate.edu)

**9:15 Break**

- 9:30 Ultra-high-performance liquid chromatography with a phenyl-hexyl column enables the separation of major pepper capsaicinoids and capsinoids.** Kishan Biradar, Jashbir Singh, Syamkumar S. Pillai, Kevin M. Crosby, and Bhimanagouda S. Patil. Vegetable and Fruit Improvement Center, USDA National Center of Excellence, Department of Horticultural Sciences, Texas A&M University, 1500 Research Parkway, Suite A120, College Station, TX 77845, USA (Bhimanagouda.Patil@ag.tamu.edu)
- 9:45 Quality Changes of Jicama Roots During Low Temperature and Controlled Atmosphere Storage.** Angelos Deltsidis\*, Orestis Giannopoulos, Ramsey Corn, Juan Carlos Diaz-Perez, Department of Horticulture, University of Georgia, Tifton, GA 31793 (adeltsidis@uga.edu)
- 10:00 Effect of Polysaccharide-Based Nanoparticle Coatings on Fig and Peach Fruit Postharvest Quality.** Danbee Lee<sup>1\*</sup>, David H. Picha<sup>2</sup>, and Qinglin Wu<sup>1</sup>, <sup>1</sup>School of Renewable Natural Resources and <sup>2</sup>School of Plant, Environmental and Soil Sciences, Louisiana State University Agricultural Center, Baton Rouge, Louisiana 70803. (dlee112@lsu.edu)
- 10:15 Studying the Impact of Ozonated Water on the Postharvest Quality of Fresh Peaches.** Orestis Giannopoulos\*, Francisco Loayza, Dario Chavez, Angelos Deltsidis, Department of Horticulture, University of Georgia, Tifton, GA 31793. (orestis.g@uga.edu)
- 10:30 Transcriptome Regulation of Postharvest Fruit Quality in Blueberry.** Savithri U. Nambeesan<sup>1\*</sup>, Yi-Wen Wang<sup>1</sup>, Shan Jing<sup>1</sup>, Ann Loraine<sup>2</sup>, D. Scott NeSmith<sup>3</sup>. <sup>1</sup>Department of Horticulture, University of Georgia, Athens, GA 30606, <sup>2</sup>Department of Horticulture, University of Georgia, Griffin, GA 30223 and <sup>3</sup>College of Computing and Informatics, University of North Carolina, Charlotte, NC 28223. (sunamb@uga.edu)

## ANNUAL BUSINESS MEETING AND AWARDS PROGRAM

**Room:** Borgne  
**Time:** 11:00-12:30  
**Presiding:** Amy Wright, President

## SAAS Meetings SAAS Board Meeting

**Bldg/Room:** Borgne  
**Time:** 2:30 PM–3:30 PM

## SAAS General Business Meeting

**Bldg/Room:** Room: Borgne  
**Time:** 4:00 PM–4:30 PM

## SAAS Social/Super Bowl Party

**Place:** Armstrong Ballroom, Sheraton  
**Time:** 5:00 PM – until



## WORKING GROUPS

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

### Southern Fruit Workers

**Presiding:** Rachel Itle  
ritle@uga.edu  
**Room:** Napoleon B2  
**Friday:** 8:00 am – 5:00 pm

### Horticulture Administrators

**Presiding:** Leo Lombardini, Chair  
Lombardini@uga.edu  
**Room:** Poydras  
**Friday:** 1:00 pm – 5:00 pm

### Watermelon Research Group

**Presiding:** Daniel S. Egel, Chair  
**Room:** Napoleon A 2/3  
**Friday:** 1:00 – 4:45 pm  
**Saturday:** 8:30 am – 4:00 pm  
**Abstracts:** To publish abstract in *HortScience*, see instructions at end of program. Submit on disk at meeting or email to Chair: egel@purdue.edu

**Friday, February 11, 2022**

**1:00 p.m. Housekeeping items**

**1:30 pm. Watermelon Standard Size Cultivar Yield and Quality Study Results, North Carolina, 2021.** Jonathan R. Schultheis\* and Keith D. Starke. Department of Horticultural Science, North Carolina State University, Raleigh, NC 27695. (jonr@ncsu.edu)

**1:45 pm. Watermelon Cultivar Incidence and Yield Response in Fields in North and South Carolina Containing *Fusarium oxysporum* f. sp. *niveum*.** Jonathan R. Schultheis\*<sup>1</sup>, Anthony Keinath<sup>2</sup>, and Lina Quesada-Ocampo<sup>3</sup>. <sup>1</sup>Department of Horticultural Science, North Carolina State University, Raleigh, NC 27695, <sup>2</sup>Plant and Environmental Sciences Department, Clemson University, Coastal Research and Education Center, Charleston, SC 29414, <sup>3</sup>Department of Entomology and Plant

Pathology, North Carolina State University, Raleigh, NC 27695. (jonr@ncsu.edu)

**2:00 pm. Compact Bed Geometry for Watermelon Production and Fusarium Management.** Josh Freeman\*, North Florida Research and Education Center, Quincy, FL 32351. (joshuafr@ufl.edu)

**2:15 pm. Dissection of Race 1 Anthracnose Resistance in a Watermelon (*Citrullus lanatus* var. *lanatus*) Biparental Mapping Population.** Bed Prakash Bhatta<sup>1,2\*</sup>, Takshay Patel<sup>3</sup>, Edgar Correa<sup>1,2</sup>, Todd C. Wehner<sup>3</sup>, Kevin M. Crosby<sup>1</sup>, Michael J. Thomson<sup>4</sup>, Richard Metz<sup>5</sup>, Shichen Wang<sup>5</sup>, Marcel Brun<sup>5</sup>, Charles D. Johnson<sup>5</sup>, and Subas Malla<sup>1,2</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, Uvalde, TX 78801, <sup>3</sup>Department of Horticultural Science, North Carolina State University, Raleigh, NC 27695, <sup>4</sup>Department of Soil and Crop Sciences, Texas A&M University, College Station, TX 77843, <sup>5</sup>Genomics and Bioinformatics Service, Texas A&M AgriLife Research, College Station, TX 77843. (subas.malla@ag.tamu.edu)

**2:30 pm. The Effect of Three Genetic Loci on Rind Thickness in Watermelon.** Lincoln Adams<sup>1</sup>, Samuel Josiah<sup>2</sup>, Reeve Legendre<sup>3</sup>, and Cecilia McGregor<sup>1,2\*</sup>. <sup>1</sup>Institute of Plant Breeding, Genetics & Genomics, University of Georgia, Athens, GA 30602, <sup>2</sup>Department of Horticulture, University of Georgia, Athens, GA 30602, <sup>3</sup>Plant, Environmental and Soil Science, Louisiana State University, Baton Rouge, LA 70803. (cmcgrel@uga.edu)

### Poster

**Food-Waste Compost as Substrate Amendment for Production of Tomato and Watermelon Seedlings.** Matthew B. Bertucci<sup>1\*</sup>, Kristen E. Gibson<sup>2</sup>, Christopher A. Baker<sup>2</sup>, Drew E. Kirkpatrick<sup>1</sup>, Rachel C. Woody-Pumford<sup>1</sup>, and Kayla Knepp<sup>1</sup>. <sup>1</sup>Department of Horticulture, University of Arkansas, Fayetteville, AR 72701, <sup>2</sup>Food Science Department, University of Arkansas, Fayetteville, AR 72704. (bertucci@uark.edu)

## National Sweet Potato Collaborators

**Presiding:** Michelle McHargue, Chair

**Room:** Napoleon B3

**Friday:** 8:00 am – 5:00 pm

**Saturday:** 8:00 am – 5:00 pm

**Abstracts:** To publish abstract in *HortScience*, see instructions at end of program. Submit on disk at meeting or email to Chair:  
(michelle.mchargue@lambweston.com)

**Friday, February 11, 2022**

**8:00 Call to Order & Announcements**

**8:15 State Reports**

**8:45 Discussion**

**9:15 Development of an Experimental System for Studying the Interaction of Essential Elements and Non-essential Heavy Metals in Sweetpotato: Preliminary Findings.** Arthur Villordon\* and Jeffrey C. Gregorie, Louisiana State University AgCenter Sweet Potato Research Station, Chase, LA 71324

**9:30 Choice under Stress: The Fate of Storage Root Development Under Reduced Phosphorus Availability** Luis Duque\*<sup>1</sup>, Bode Olukolu<sup>2</sup>, Arthur Villordon<sup>3</sup>, and Jonathan Lynch<sup>1</sup> <sup>1</sup>Department of Plant Science, Penn State University, University Park, PA 16802, <sup>2</sup>Department of Entomology and Plant Pathology, Institute of Agriculture, University of Tennessee, Knoxville, TN 37996, <sup>3</sup>LSU AgCenter, Louisiana State University, Baton Rouge, LA 70803

**9:45 Morning Break**

**10:00 Does a Sleeve Adaptor Using Variable Plant Lengths for Sweetpotato Planting Improve Yields?** Brandon K. Parker\*<sup>1</sup>, Jonathan R. Schulthesis<sup>2</sup>, <sup>1</sup>NC Cooperative Extension- Johnston County, 2736 NC 210 Hwy. Smithfield, NC 27577, <sup>2</sup>Department of Horticultural Science, North Carolina State University, 2721 Founders Drive, Raleigh, NC 27695-7609

**10:15 Evaluation of Sweetpotato Slip Burn-off and In-Row Skips.** Callie J. Morris\*, Mark W. Shankle, Stephen L. Meyers, Mark A. Hall, Trevor F. Garrett, and Lorin M. Harvey, Pontotoc Ridge-Flatwoods Branch Experiment Station, Mississippi State University, Pontotoc, MS 38863

**10:30 Performance of Specialty Sweetpotato Cultivars in Dominant Production Areas of Florida.** W. Mussoline<sup>1</sup>, R. Hochmuth<sup>2</sup>, C. Christensen<sup>3</sup>, S. Guzman<sup>4</sup>, and Z. Grabau<sup>5</sup> <sup>1</sup>UF/IFAS Agriculture Extension Agent, East Palatka, FL, 32131, <sup>2</sup>UF/IFAS North Florida Research and Education Center- Suwannee Valley, Live Oak, FL, 32060, <sup>3</sup>UF/IFAS Hastings Agriculture Extension Center, Hastings, FL, 32060, <sup>4</sup>Agricultural and Biological Engineering Department, University of Florida, Indian River Research and Education Center, Fort Pierce, FL, 34945, <sup>5</sup> Entomology and Nematology Department, University of Florida, Gainesville, FL, 32608

**10:45 Potassium Fertilizer has Minimal Impact on Sweetpotato Production in California.** Scott Stoddard. University of California. Extension, Merced, CA 95341

**11:00 Yield and Quality of Sweetpotato Grown under Protected Culture Systems.** Luis Duque\* and Francesco DiGioia, Department of Plant Science, Penn State University, University Park, PA 16802

**11:15 Differences in Microenvironmental Conditions Under Protected Systems for Sweetpotato (*Ipomoea batatas*) Slips Production in Missouri.** Ramón Arancibia\*, Juan Cabrera-Garcia, and Patrick Byers. University of Missouri Extension, Columbia, MO

**11:30 Effect of Potassium Fertilization Rate on Sweetpotato Sugar Conten.** David H. Picha\*<sup>1</sup>, Cheston T. Schayot<sup>1</sup>, and Mark W. Shankle<sup>2</sup> <sup>1</sup>School of Plant, Environmental and Soil Sciences, Louisiana State University Agricultural Center, Baton Rouge, LA 70803, <sup>2</sup>Pontotoc Ridge-Flatwoods Branch Experiment Station, Mississippi State University, Pontotoc, MS 38863

**11:45 Lunch Break**

**1:00 Overview of the Nation's Sweet Potato Industry Challenges, Research Needs, and Clean Seed Adoption Rates.** Rachael M. Carter\*<sup>1</sup>, Mark W. Shankle<sup>2</sup>, Lorin M. Harvey<sup>2</sup>, Donna J. Peterson<sup>3</sup>, and Elizabeth P.G. North<sup>4</sup> <sup>1</sup>Extension Center for Government and Community Development, Mississippi State University, Mississippi State, MS 39762, <sup>2</sup>Pontotoc Ridge-Flatwoods Branch Experiment Station, Mississippi State

University, Pontotoc, MS 38863,  
<sup>3</sup>Department of Human Sciences, Mississippi State University, Mississippi State, MS 39762, <sup>4</sup>Department of Agricultural Communications, Mississippi State University, Mississippi State, MS 39762

- 1:15 The Use of Polysulphate as a Potassium Fertilizer for Sweet Potato (*Ipomoea batatas*) Production in North Carolina.** Alex L. Woodley\*<sup>1</sup>, Lily Kile<sup>1</sup>, David Suchoff<sup>1</sup>, Luke Gatiboni<sup>1</sup> and Anders Huseth<sup>2</sup> <sup>1</sup>Department of Crop and Soil Sciences, <sup>2</sup>Department of Entomology and Plant Pathology, North Carolina State University, Raleigh, NC 27695
- 1:30 Characterizing Temporal Sweetpotato Production Trends Through In-Season Environmental, Biomass, and Grade Data.** Mariella Carbajal Carrasco<sup>1\*</sup>, Anders Huseth<sup>2</sup>, Natalie Nelson<sup>1</sup> <sup>1</sup>3110 Faucette Dr, Department of Biological and Agricultural Engineering, North Carolina State University, Raleigh, NC 27695, <sup>2</sup>1575 Varsity Drive, Department of Entomology and Plant Pathology, North Carolina State University, Raleigh, NC 27695
- 1:45 Evaluation of Alternative Sweetpotato Slip Planting Orientations.** Alyssa Jane Woodard\*<sup>1</sup>, Jonathan Schultheis<sup>1</sup>, and David Suchoff<sup>2</sup> <sup>1</sup>Department of Horticultural Science, North Carolina State University, Raleigh, NC 27695, <sup>2</sup>Department of Crop and Soil Sciences, North Carolina State University, Raleigh, NC 27695.
- 2:00 The Use of Winter Cover Crops for Nitrogen Management in Organic Sweet Potato Production.** Lily Kile\*, Alex Woodley, Anders Huseth, David Suchoff, and Luke Gatiboni, Department of Crop and Soil Sciences, North Carolina State University, Raleigh, NC 27695
- 2:15 Variation in Root System Response to Local Phosphorus Availability Among Sweetpotato Cultivars** Jeffrey C. Gregorie\* and Arthur Q. Villordon. LSU AgCenter Sweet Potato Research Station, Chase, LA 71324
- 2:30 Deployment and Analysis of Instance Segmentation Algorithm on Cellphone for Grade Estimation of Sweetpotatoes In-field.** Hoang M. Nguyen\*<sup>1</sup>, Sydney Gyurek<sup>1</sup>, Russell Mierop<sup>2</sup>, Kenneth V. Pecota<sup>2</sup>, G. Craig Yencho<sup>2</sup>, Michael W. Kudenov<sup>1</sup> <sup>1</sup>Department of Electrical and Computer Engineering, North Carolina State University, Raleigh, NC 27607, <sup>2</sup>Department of Horticultural Science, North Carolina State University, Raleigh, NC 27695
- 2:45 Statistical Phenotyping of Sweetpotatoes (*Ipomoea batatas*) by Imaging the Top of Bins: Preliminary Results from a High-throughput Truck Scanner.** Enrique Pena Martinez\*<sup>1</sup>, Hoang Nguyen<sup>1</sup>, Craig Yencho<sup>2</sup>, Russell Mierop<sup>2</sup>, Kenneth Pecota<sup>2</sup>, Cranos Williams<sup>1</sup>, Michael Kudenov<sup>1</sup> <sup>1</sup>Department of Electrical and Computer Engineering, North Carolina State University, Raleigh, NC 27606, <sup>2</sup> Department of Horticultural Science, North Carolina State University, Raleigh, NC 27695
- 3:00 Afternoon Break**
- 3:15 Exploring and Quantifying the Chemical Constituents Responsible for Consumer-preferred Flavors in Sweetpotatoes.** Modesta Abugu\*<sup>1</sup>, Suzanne Johanningsmeier<sup>2</sup>, Matthew Allan<sup>2</sup>, Massimo Iorizzo<sup>1,3</sup>, Craig Yencho<sup>1</sup> <sup>1</sup>Department of Horticultural Science, North Carolina State University, Raleigh, NC 27695, <sup>2</sup>USDA\_ARS, Southeast Area Food Science and Market Quality & Handling Research Unit, 322E Schaub Hall, Raleigh NC, 27695, <sup>3</sup>Plants for Human Health Institute, Department of Horticultural Science, North Carolina State University, Kannapolis, NC, 28081
- 3:30 PEG-Mediated Genome Editing in *Ipomoea batatas* Protoplasts Directed by CRISPR-Cas9 Ribonucleoprotein Complexes.** Adrienne Brown\*, M. Egnin, F. Bukari, D. Mortley, C. Bonsi, D. Alexander, Plant Biotech and Genomics Research Laboratory, Department of Agriculture and Environmental Sciences Tuskegee University, Tuskegee, AL, 36088
- 3:45 Sweetpotato Chip Textures and Fat Contents: Effects of Cell Wall Active Enzymes.** Matthew C. Allan\* and Suzanne Johanningsmeier, Food Science and Market Quality and Handling Research Unit, United States Department of Agriculture - Agricultural Research Service, Raleigh, NC 27695
- 4:00 Sweetpotato Marketing Alterations**

### During the COVID-19 Pandemic

David H. Picha. School of Plant, Environmental and Soil Sciences, Louisiana State University Agricultural Center, Baton Rouge, LA 70803

#### 4:15 Sweetpotato Analytics for Produce Provenance and Scanning (Sweet-APPS).

Daniela Jone, Department of Biological and Agricultural Engineering, North Carolina State University, Raleigh, NC 27695

### Poster Presentations

#### Analyzing Big Data Generated During Sweetpotato Production to Predict Shape Features.

Shelly Hunt<sup>1</sup>, Daniela Jones<sup>1</sup> and Cranos Williams,<sup>2</sup> <sup>1</sup>Department of Biological and Agricultural Engineering, North Carolina State University, Raleigh, NC 27695, <sup>2</sup>Department of Electrical and Computer Engineering, North Carolina State University, Raleigh, NC 27695

#### Evaluating Fumigation Efficacy on Root-knot Nematode (*Meloidogyne* spp.) on Sweetpotatoes in North Florida.

Chang Liu\* and Z. J. Grabau, Entomology and Nematology Department, University of Florida, Gainesville, FL, 32601

#### Evaluation of Host Status of Sweetpotato Cultivars to Sting Nematode *Belonolaimus longicaudatus* in the Greenhouse.

Chang Liu\* , Z. J. Grabau and R. Sandoval-Ruiz, Entomology and Nematology Department, University of Florida, Gainesville, FL, 32601

#### Integration of Genomic and Quantitative Strain-level Metagenomic Profiles by Using qRRS in the Sweetpotato Phyllospher.

Alison Adams\*<sup>1</sup>, Priya Voothuluru<sup>2</sup>, Brandon Kristy<sup>3</sup>, Harper Kirby<sup>4</sup>, Phil A. Wadl<sup>5</sup>, G. Craig Yencho<sup>6</sup>, and Bode Olukolu<sup>7</sup> <sup>1</sup>UT-ORNL Graduate School of Genome Science and Technology, University of Tennessee, Knoxville, TN 37996, <sup>2</sup>The Center for Renewable Carbon, The University of Tennessee Institute of Agriculture, Knoxville, TN 37996, <sup>3</sup>Oak Ridge National Laboratory, Oak Ridge, TN 37831, <sup>4</sup>Department of Biochemistry & Cellular and Molecular Biology, University of Tennessee, Knoxville, TN 37996, <sup>5</sup>United States Department of Agriculture, Agriculture Research Service, U.S. Vegetable Research, Charleston, SC 29414, <sup>6</sup>Department of Horticultural Science, NC State University, Raleigh, NC 27695, <sup>7</sup>Department of Entomology and Plant Pathology, University of Tennessee, Knoxville, TN 37996

#### Impact of Reduced Rates of Glufosinate and 2,4-D Choline on Sweetpotato.

Donnie K. Miller and

Marcie S. Mize, Northeast Research Station, Louisiana State University AgCenter, St. Joseph, LA 71366

#### Effects of Early-season Drought, Ultraviolet-B, and Low Nitrogen Stress on Growth, Developmental, and Physiology of Sweetpotato Cultivars.

Purushothaman Ramamoorthy\*<sup>1</sup>, Raju Bheemanahalli<sup>2</sup>, Stephen Meyers<sup>3</sup>, Mark Shankle<sup>4</sup>, and K. Raja Reddy<sup>2</sup> <sup>1</sup>Geosystems Research Institute, Mississippi State University, Mississippi State University, MS, 39762, <sup>2</sup>Department of Plant and Soil Sciences, Mississippi State University, Mississippi State, MS, <sup>3</sup>Department of Horticulture and Landscape Architecture, Purdue University, West Lafayette IN 47907, <sup>4</sup>Pontotoc Ridge-Flatwoods Branch Experiment Station, North Mississippi Research and Extension Center, Mississippi State University, Pontotoc, MS 38863

#### Sweetpotato Breeding Line Resistance to *Meloidogyne enterolobii* and *M. incognita*

David Galo\*<sup>1</sup>, Josielle S. Rezende<sup>1</sup>, Christopher A. Clark<sup>1</sup>, Don R. Labonte<sup>2</sup>, Tristan Watson<sup>1</sup> <sup>1</sup>Department of Plant Pathology and Crop Physiology, Louisiana State University Agricultural Center, Baton Rouge, LA 70803, <sup>2</sup>School of Plant, Environmental, and Soil Sciences, Louisiana State University Agricultural Center, Baton Rouge, LA 70803

#### Sweetpotato Response to Incremental Rates of Potassium Fertilizer.

Mark A. Hall, Mark W. Shankle, Lorin M. Harvey, and Callie J. Morris, Pontotoc Ridge-Flatwoods Branch Experiment Station, Mississippi State University, Pontotoc, MS 38863

#### A Multi-State Effort to Contain and Manage *Meloidogyne enterolobii* in Vegetable Crops

Jennifer Corbin<sup>1</sup>, Paula Agudelo<sup>1</sup>, Johan Desaegeer<sup>2</sup>, Adrienne Gorny<sup>3</sup>, Zane Grabau<sup>4</sup>, Zhengfei Guan<sup>2</sup>, Abolfazl Hajihassani<sup>5</sup>, John Mueller<sup>1</sup>, Lina Quesada-Ocampo<sup>3</sup>, Will Rutter<sup>6</sup>, and Phillip Wadl<sup>6</sup> <sup>1</sup>Department of Plant and Environmental Sciences, Clemson University, Clemson, SC 29634, <sup>2</sup>University of Florida Gulf Coast Research and Education Center, Wimauma, FL 33598, <sup>3</sup>Department of Entomology and Plant Pathology, North Carolina State University, Raleigh, NC 27695, <sup>4</sup>Department of Entomology and Plant Pathology, University of Florida, Gainesville, FL 32611, <sup>5</sup> Department of Entomology and Plant Pathology, University of Georgia, Tifton, GA 31793, <sup>6</sup>USDA-ARS, Charleston, SC 29414

#### 5:00 Adjourn for the Day

Saturday, February 12, 2022

39759

**8:00 Call to Order and Announcements**

**8:15 Optimizing Deployment of a Novel Wireworm Pheromone in Sweetpotato Agroecosystems.**

Anders S. Huseth\*<sup>1</sup>, Emma Schoeppner<sup>1</sup>, Alyssa M. Pellegrino<sup>1</sup>, Livy Williams III<sup>2</sup>, Jocelyn G. Millar<sup>3</sup>, Seth J. Dorman<sup>4</sup>, Helene Doughty<sup>5</sup>, and Tom Kuhar<sup>6</sup> <sup>1</sup>Department of Entomology and Plant Pathology, North Carolina State University; Campus Box 7630, Raleigh, NC, 27695, <sup>2</sup>USDA-ARS U.S. Vegetable Laboratory; 2700 Savannah Highway, Charleston, SC, 29414, <sup>3</sup>University of California, Riverside, Department of Entomology, 3401 Watkins Dr., Riverside, CA, 92521, <sup>4</sup>USDA-ARS, Forage Seed and Cereal Research Unit, Corvallis, OR, USA, <sup>5</sup>Department of Entomology, Virginia Tech, Painter, VA 23420, <sup>6</sup> Department of Entomology, Virginia Tech, Blacksburg, VA 24061

**8:30 Utilizing Plant Hormones as Herbicide Safeners in Sweetpotato.**

Matthew Cutulle\* and Giovannia Caputo, Department of Plant and Environmental Sciences, Clemson University, 2700 Savannah Hwy Charleston, SC 29414

**8:45 How Much Are We Under-Estimating the Effects of Sweetpotato Viruses on Yield in the U.S.?**

C. A. Clark\*, C. D. DeRobertis, and J. A. Davi, <sup>1</sup>Department of Plant Pathology and Crop Physiology, Louisiana State University Agricultural Center, Baton Rouge, LA 70803 and <sup>2</sup>Department of Entomology, Louisiana State University Agricultural Center, Baton Rouge, LA 70803

**9:00 Integrated Nematode Management: a Louisiana Perspective.**

Tristan Watson\* and J.S. Rezende, Department of Plant Pathology and Crop Physiology, LSU AgCenter, Baton Rouge, LA 70803

**9:15 Integrating Winter Cover Crops and Weed-suppressive Sweetpotato Cultivars for Weed Management.**

Isabel S. Werle\*<sup>1</sup>, Matheus M. Nogueira<sup>1</sup>, Srikanth K. Karaikal<sup>1</sup>, Gustavo B. de Lima<sup>1</sup>, Te-Ming Tseng<sup>2</sup>, and Nilda Roma-Burgos<sup>1</sup> <sup>1</sup>Department of Crop, Soil, and Environmental Sciences, University of Arkansas, Fayetteville, AR 72704, <sup>2</sup> Department of Plant and Soil Sciences, Mississippi State University, Starkville, MS

**9:30 Morning Break**

**9:45 Resistance to Wireworm / *Diabrotica* / *Systema* Among Sweetpotato Cultivars and Advanced Lines.**

T. J. Douglas\*<sup>1</sup>, Stephen L. Meyers<sup>2</sup>, Ashli Brown<sup>3</sup>, Blake Layton<sup>3</sup> and Fred Musser<sup>3</sup> <sup>1</sup>Department of Biochemistry, Molecular Biology, Entomology and Plant Pathology, Mississippi State University, Mississippi State, MS 39762. Currently at Auburn University, <sup>2</sup>Pontotoc Ridge-Flatwoods Branch Experiment Station, Mississippi State University, Pontotoc, MS 38863. Currently at Purdue University, <sup>3</sup>Department of Biochemistry, Molecular Biology, Entomology and Plant Pathology, Mississippi State University, Mississippi State, MS 39762

**10:00 Sweetpotato Response to Reduced Rates of Dicamba.**

Lorin M. Harvey\*, Mark W. Shankle, and Callie J. Morris, Pontotoc Ridge-Flatwoods Branch Experiment Station, Mississippi State University, Pontotoc, MS 38863

**10:15 Production of Green-engineered Silver Nanoparticles Against the Root-knot Nematode *Meloidogyne incognita*, and the Evaluation of Their Nematicidal Activity in Sweetpotato.**

Gregory C. Bernard\*, Naresh Shahi<sup>2</sup>, Byungjin Min<sup>2</sup>, Marceline Egnin, Ivi Mitchell, Andrea Lockett, Inocent Ritte, Osa Idehen, Adrienne Brown, and Conrad Bonsi, Department of Agriculture, Department of Nutrition Science<sup>2</sup> Tuskegee University, 1200 W. Montgomery Rd. Tuskegee, AL 36088

**10:30 Effect of Flumioxazin and S-metolachlor on Covington sweetpotato planted vertically or horizontally.**

Keith D. Starke\*<sup>1</sup>, Levi D. Moore<sup>2</sup>, Colton D. Blankenship<sup>2</sup>, Katherine M. Jennings<sup>2</sup>, David W. Monks<sup>2</sup>, Jonathan Schultheis<sup>2</sup> <sup>1</sup>Central Crops Research Station, North Carolina State University, Clayton, NC 27520, <sup>2</sup>Horticultural Science Department, North Carolina State University, Raleigh, NC 27695

**10:45 Are We Staying Clean? Detection of Sweetpotato Viruses on Multiple Seed Generations in North Carolina.**

Christie Almeyda\*<sup>1</sup>, Tamara Abernethy<sup>1</sup>, Chunying Li<sup>1</sup>, Ken Pecota<sup>2</sup> and Craig Yencho<sup>2</sup>



<sup>1</sup>Micropropagation and Repository Unit, Department of Entomology and Plant Pathology, North Carolina State University, Raleigh, NC 27607, <sup>2</sup>Department of Horticultural Science, North Carolina State University, Raleigh, NC 27695

**11:00 Development of an IPM Program for the Sweet Potato Weevil, *Cylas formicarius* in Puerto Rico**

Martha Giraldo\*<sup>1</sup> and Wanda I. Almodóvar<sup>2</sup> <sup>1</sup>Department of Agroenvironmental Sciences, University of Puerto Rico at Mayaguez Campus, Agricultural Experimental Station (AES) at Rio Piedras, San Juan, <sup>2</sup>Department of Agroenvironmental Sciences, University of Puerto Rico, Mayaguez Campus, Agricultural Extension Service at Mayaguez

**11:15 Evaluating Electrical and Mechanical Methods for Palmer Amaranth (*Amaranthus palmeri*) Control in Sweetpotato**

Levi D. Moore\*<sup>1</sup>, Katherine M. Jennings<sup>1</sup>, David W. Monks<sup>1</sup>, Michael D. Boyette<sup>2</sup>, Ramon G. Leon<sup>3</sup>, David L. Jordan<sup>3</sup>, Stephen J. Ippolito<sup>1</sup>, Colton D. Blankenship<sup>1</sup>, and FNU Chitra<sup>1</sup> <sup>1</sup>2721 Founders Drive, Department of Horticultural Science, North Carolina State University, Raleigh, NC 27695, <sup>2</sup>3100 Faucette Dr., Department of Biological and Agricultural Engineering, North Carolina State University, Raleigh, NC 27695, <sup>3</sup>101 Derieux Pl, Department of Crop and Soil Sciences, North Carolina State University, Raleigh, NC 27695

**11:30 Evaluating Sweet Potato Varieties for Their Allelopathic Effects on Growth of Different Weed Species under Field Conditions.**

Varsha Singh\*<sup>1</sup>, Isabel Werle<sup>2</sup>, Mark W. Shankle<sup>3</sup>, Stephen L. Meyers<sup>4</sup>, and Te-Ming Tseng<sup>1</sup> <sup>1</sup>Mississippi State University, Starkville, MS 39762, <sup>2</sup>University of Arkansas, Fayetteville, AR 72701, <sup>3</sup>Mississippi State University, Pontotoc, MS 38863, <sup>4</sup>Purdue University, West Lafayette IN, 47907

**11:45 Investigating the Use of Biologicals and Re-curing for the Management of Rhizopus Soft Rot on Sweetpotato Roots.**

Waana Kaluwasha\* and Christopher Clark, Department of Plant Pathology and Crop Physiology, Louisiana State University, Baton Rouge, LA 70801

**12:00 QTL analysis of the ‘Tanzania’ x ‘Beauregard’ Sweetpotato Mapping**

**Population for Resistance to *Meloidogyne enterolobii*.**

Simon Fraher\*<sup>1</sup>, Tanner Schwarz<sup>2</sup>, Bonny Oloka<sup>3</sup>, Ken Pecota<sup>1</sup>, Chris Heim<sup>1</sup>, Adrienne Gorny<sup>2</sup>, and G. Craig Yencho<sup>1</sup> <sup>1</sup>Department of Horticultural Science, North Carolina State University, Raleigh, NC 27695, <sup>2</sup>Department of Entomology and Plant Pathology, North Carolina State University, Raleigh, NC 27695, <sup>3</sup>Root Crops Program, National Agricultural Research Organization, Entebbe, Uganda

**12:15 Effect of Preemergence Herbicides in Covington Sweetpotato.**

Stephen Ippolito\*<sup>1</sup>, Katherine M. Jennings<sup>1</sup>, David W. Monks<sup>1</sup>, Sushila Chaudhari<sup>2</sup>, David L. Jordan<sup>3</sup>, <sup>1</sup> Department of Horticultural Science, North Carolina State University, Raleigh, NC, USA, <sup>2</sup> Department of Horticulture, Plant and Soil Science, Michigan State University, East Lansing, MI, USA, <sup>3</sup> Department of Crop and Soil Sciences, North Carolina State University, Raleigh, NC, USA

**12:30 Lunch**

**1:45 Discussion**

**2:30 Business Meeting and Awards**

**5:00 Adjourn**

## 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.

Friday, February 11																	
	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																
Napoleon B2	Southern Fruit Workers																
Napoleon B3	National Sweet Potato Collaborators																
Napoleon A 2/3	Watermelon Research Group																
Poydras	Horticulture Administrators Executive Com.																
Napoleon C2	ACB Club Share and Networking ACB Activities, Tour, Meal or TBA TBA ACB Mixer																
Napoleon B1	National ASHS Board of Directors																
Saturday, February 12																	
	8:00	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00							
Napoleon Foyer	7:00 open Registration																
Napoleon Foyer	Set-up Room			Authors Mount Posters			Poster Viewing		Author at Poster Even Number			Author at Poster Odd Number					
Napoleon C3	Judging Contest Set-Up						J. Benton Storey Horticulture Judging Contest						ACB Scoring				
Napoleon B3	National Sweet Potato Collaborators																
Napoleon A 2/3	Watermelon Research Group																
Napoleon C2	Education Extension																
Napoleon B1	Fruit Crops Section								Vegetable Crops Section								
Napoleon C1	Edmond UG Oral Paper Competition								Barham Ph.D. Oral Paper Competition								
Napoleon D2	Childers M.S. Oral Paper Competition								Childers M.S. Oral Paper Competition								
Sunday, February 13																	
	8:00	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00							
Napoleon Foyer	7:00 open Registration																
Napoleon Foyer	Poster Session Viewing						Poster Take down										
Borgne	ACB Business Meeting						Business Meeting/Awards Prog.										
Oakley	7:45	Vegetable Crops Section															
Edgewood A/B	Floriculture,Ornamentals & Turf Section																
Estherwood	Fruit Crops Section																
Napoleon A1	Postharvest & Biotechnology Section																
Borgne	SAAS Board Mtg SAAS Bus.!																
Armstrong Ballroom	Super Bowl Party																



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