2022 Annual Meeting
February 11-13, 2022
New Orleans, LA
86th Year
Southern Region
American Society for Horticultural Science
102nd 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, ASA) 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). 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
College of Agriculture
Auburn University
107 Comer Hall
Auburn, AL 36849
Phone: 334-844-3254
wrigham@auburn.edu

President-Elect
Matt Chappell
Virginia Tech University
Tidewater Agricultural Research & Extension Center (AREC)
Suffolk, VA 23437-0099
chappell@vt.edu

Secretary-Treasurer
David Wm. Reed
Dept. of Horticultural Sciences
Texas A&M University
TAMU 2133
College Station, TX 77843
Phone: 979-777-2750
dwreed@tamu.edu

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

SATURDAY
7:00 am - 6:00 pm  Registration
Napoleon Foyer
8:00 am – 10:00 pm  Poster Set Up Room
Napoleon Foyer
8:00 am – 12:00 pm  J. Benton Storey Horticulture Judging Contest Setup
Napoleon C3
8:00 am - 8:30 am  Education Section
Napoleon C2
8:30 am - 5:00 pm  Extension Section
Napoleon C2
8:00 am - 11:30 pm  Fruit Crops Section
Napoleon B1
8:00 am – 10:30 am  J. B. Edmond Undergraduate Student Paper Competition.
Napoleon C1
8:30 am - 4:00 pm  Watermelon Research Group
Napoleon A 2/3
10:00 am – 12:00 pm  Posters Authors Mount Posters
Napoleon Foyer
10:45 am - 3:15 pm  Norman F. Childers M.S. Student
Napoleon D2
12:00 pm - 5:00 pm  Poster Session Viewing
Napoleon Foyer
12:00 pm - 5:00 pm  J. Benton Storey Horticulture Judging Contest
1:00 pm - 3:30 pm  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 - 10:45 am  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. 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: J Fields@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 Pace¹*, Bruce L. Dunn¹, Charles Fontanier¹, Carla Goad², and Hardeep Singh³, 358 Ag Hall, Department of Horticulture and Landscape Architecture, Oklahoma State University, Stillwater, OK 74078. ¹³01F MSCS Bldg., Department of Statistics, Oklahoma State University, Stillwater, OK 74078, ³2002 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
6. **Effects of Paper and Plastic Mulch on Tomato and Okra Production.** Izzy Gonzales*, Bizhen Hu, Lynn Brandenberger, Matthew Beartrack, and Charles Fontanier. 1Department of Environmental Science, Oklahoma State University, Stillwater, OK 74078, 2Department 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, Sarah Cato, Lizzy Herrera, Aaron Cato, and Amanda McWhirt. 1Department of Biology, University of Arkansas at Little Rock, 2801 S. University Ave., Little Rock, AR 72204, 2Department 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, Paul Bartley, Dexter Watts, and Allen Torbert. 1Department of Horticulture, Auburn University, AL 36849, 2USDA-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, Yan Chen, Zhijun Liu, and Lisa Fultz. 1School of Plant, Environmental and Soil Sciences, Louisiana State University, 2School of Renewable Natural Resources, Baton Rouge, LA 70803. (yachen@agcenter.lsu.edu)

10. **Scalable Extraction and Purification of an Anti-Cancer Drug Precursor from Oklahoma Eastern Red Cedar.** Gwen Reilly, Niels Lomassé, John Nickel, and Katie Stenmark. 1Department of Nutritional Sciences, 2Department 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, Yan Chen, Harrison Steudlein, Zhijun Liu, and Lisa Fultz. 1School of Plant, Environmental and Soil Sciences, Louisiana State University, 2School 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


2. Alleviating dormancy: The effect of temperature, giberellic 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,
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, Shane Breeden, Savithri Nambeesan, Mark Hoffman, Cain Hickey and Leonardo Lombardini. 1 Department of Horticulture, University of Georgia, Athens, GA 30606, 2 Department of Horticulture, North Carolina State University, Raleigh, NC 27607, 3 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)


7. Effects of pumpkin spacing on fruit yield, size, and uniformity. Kim Heagy, Travis Birdsell and Jonathan Schultheis. 1 Raleigh, NC, Department of Horticultural Science, NC State University, 2 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, Terri Starman, H. Brent Pemberton and Calvin Trostle. 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)

9. Evaluation of shipping potential on marketability of North Carolina-grown muscadine grapes. J. Cody Rawls, Renee T. Threlfall and Margaret L. Worthington. 1 2650 N. Young Avenue, Food Science Department, University of Arkansas, Fayetteville, AR 72704, 2 316 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, Jonathan Schultheis and David Suchoff. 1 Department of Horticultural Sciences, North Carolina State University, Raleigh, NC 27695, 2 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. (brui2@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. McClelan, Renee T. Threlfall, Amanda L. McWhirt, Aaron Cato, Luke R. Howard and Cindi R. Brownmiller. 1 2650 N. Young Avenue, Food Science Department, University of Arkansas, Fayetteville, AR 72704, 2 2301 S. University Ave., Cooperative Extension Service, University of Arkansas, Little Rock, AR 72204. (jomcclel@uark.edu)

Higher nitrogen pre-plant rates are not associated with improved yield of June bearing strawberry in North Carolina. Amanda Lay-Walters*, Michelle Schroeder-Moreno, Alex Woodley and Mark Hoffmann. 1 Department of Horticultural Science, North Carolina State University, Raleigh, NC 27695, 2 Department of Crop and Soil Science, North Carolina State University, Raleigh, NC 27695. (rebeckah.maynard@uga.edu)

Investigating acquisitional nitrogen source preference in southern highbush blueberry. John Doyle*, Anish Malladi and Miguel Cabrera. 1 1111 Plant Sciences Building, Department of Horticulture, University of Georgia, Athens, GA 30601, 2 4119 Plant Sciences Building, Department of Crop and Soil Sciences, University of Georgia, Athens, GA 30601. (doylejw@uga.edu, malladi@uga.edu)

Investigating optimal irrigation of Vitis vinifera ‘Roussanne’ vines grown on the Texas High Plains. Kyle Lauterbach*, Thayne Montague, Pierre Helwi and Ed Hellman. 1 Department of Plant and Soil Science, Texas Tech University, Lubbock, TX 79409, 2 Texas A&M AgriLife Research and Extension Center, Lubbock, TX 79403, 3 Department of Plant and Soil Science, Texas Tech University, Fredericksburg, TX 78624. (klauterb@ttu.edu)

Investigation of methyl bromide replacements: Controlling soil pests through steam in combination with alternative chemicals. Emma Volk*, Gene Fox, Joe Neal, Steven Fennimore and Mark Hoffmann. 1 Department of Horticultural Science, North Carolina State University, Raleigh, NC 27695, 2 University of California Davis, Department of Plant Science, Salinas, CA 93905. (evolk@ncsu.edu)

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)

Prgomery height manipulation on dwarf and standard blackberry plants utilizing plant growth regulators. Carmen Johns*, Margaret Worthington, Christopher Claver and Tom Kon. 1 1316 Plant Science, Department of Horticulture, University of Arkansas, Fayetteville, AR 72701, 2 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)

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)

Using Lachancea 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. (ajfleming@uark.edu)

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)

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 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*, Rafael Bohn Reckziegel, Alexander Bucksch and Dario J. Chavez. 1 Cowart Building - Rm 214, Institute of Plant Breeding, Genetics, Genomics, University of
2. Association mapping of fruit firmness and morphology in blackberry. Mason Chizk1*, Margaret Worthington1, Carmen Johns1, Lacy Nelson1, John R. Clark1, Rishi Aryal2 and Hamid Ashrafi2. 1 1316 Plant Science, Department of Horticulture, University of Arkansas, Fayetteville, AR 72701, 2 North Carolina State University Department of Horticultural Sciences, 234 Kilgore Hall Campus Box 7609, Raleigh, NC 27695. (tmchzik@uark.edu)

3. Dissection of race 1 anthracnose resistance in a watermelon (Citrullus lanatus var. lanatus) biparental mapping population. Bed Prakash Bhattacharya1,2哲学, Takshay Patel1, Edgar Correa1,2, Todd C. Wehner1, Kevin M. Crosby1, Michael J. Thomson1, Richard Metz1, Shichen Wang2, Marcel Brun3, Charles D. Johnson3 and Subas Malla1,2. 1 Department of Horticultural Sciences, Texas A&M University, College Station, Texas, 77843, USA, 2 Texas A&M AgriLife Research and Extension Center, Uvalde, Texas, 78801, USA, 3 Department of Horticultural Science, North Carolina State University, Raleigh, North Carolina, 27695, 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. Bowden1, Patricia R. Knight1, Jenny B. Ryals1, Christine E.H. Coker1, Scott A. Langlois1, Shaun R. Broderick2, Eugene K. Blythe1, Hamidou F. Sakhanokho3 and Ebrahimi M. Babiker1. 1 Coastal Research and Extension Center, South Mississippi Branch Experiment Station, P.O. Box 193, Poplarville, MS 39470, 2 Truck Crops Branch Experiment Station, 2024 Experiment Station Rd., Crystal Springs, MS 39059, 3 College of Agriculture, Auburn University, Auburn, AL 36849. 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 Jesus1, Kate Cassity-Duffy1, Andre da Silva1, Bhabesh Dutta3 and Timothy Coolong1. 1 1111 Miller Plant Sciences, University of Georgia, Athens, GA 30602, 2 124 Funchess Hall, Auburn University, Auburn, AL 36849, 3 2360 Rainwater Rd., University of Georgia, Tifton, GA 31793. (hannaj@uga.edu)

6. Effect of drying methods no hemp flower quality. Noelle Joy1, Timothy Coolong1, and Daniel Jackson2. 1 1111 Miller Plant Sciences, University of Georgia, Athens, GA 30602, 2 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. Crisci0ne1 and Jeb S. Fields. Hammond Research Station, Louisiana State University Agricultural Center, 21549 Old Covington Hwy., Hammond, LA 70403. (kcrisc2@lsu.edu)


9. Influence of cadmium on growth and nutrient uptake in hydroponically-grown hemp. Amanda Olbrick Marabesi1, Timothy Coolong2 and Jason Jess1. 1 1111 Miller Plant Sciences, University of Georgia, Athens, GA 30602, 2 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 Mohammed1, Kathleen S. Amaral1, Juyoung Kim2, Shangci Wang2, Koushik Adhikari2, Renée M. Holland3, D. Scott NeSmith1 and Rachel A. Ile1. 1 Department of Horticulture, University of Georgia, UGA – Cowart Building, 210 Cowart Street, Griffin, GA 30223, 2 Department of Food Science & Technology, University of Georgia, UGA – Melton Building, 350 Woodroof Drive, Griffin GA, 30223, 3 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 Rijal1, 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. Olorunwa1*, Bikash Adhikari1, Aiong Shi2 and T. Casey Barickman1. 1 Department of Plant and Soil Sciences, Mississippi State University, North Mississippi Research and Extension Center, Verona, MS, 38879, 2 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 Magar1, George Vellidis2, Wesley Porter2, Vasileios Liakos2, Jose H. Andreis3 and Dario J. Chavez1. 1 Department of Horticulture, University of Georgia, Griffin Campus, Griffin, GA 30223, 2 Department of Crop and Soil Sciences, University of Georgia, Tifton Campus, Tifton, GA 31793, 3 Austin LTDA ME, Marau, RS 99150-000, Brazil. (st45674@uga.edu)

14. Texture characteristics associated with fruit shelf-life in blueberry. Heeduk Oh1,2*, Marti Potterf1, Lara Giongo3, Massimo Iorizzo1,2 and Penelope Perkins-Weazie1,2. 1 Plants for Human Health Institute, North Carolina State University, Kannapolis, NC, USA 28081, 2 Department of Horticulture, North Carolina State University, Raleigh, NC, USA 27607, 3 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 Wu1,2*, Runshi Xie1,2, Elizabeth Chun2, Gary W. Knox3, Mengmeng Gu4 and Hongmin Qin5. 1 Department of Horticultural Sciences, Texas A&M University, College Station, TX 77843, 2 Department of Biology, Texas A&M University, College Station, TX 77843, 3 Department of Environmental Horticulture, University of Florida/IFAS North Florida Research and Education Center, Quincy, FL 32351, 4 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. Ryals1,*, Patricia R. Knitt1, Anthony T. Bowden1, Christine E. H. Coker2, Gary R. Bachman2, Jim DelPrince2, Scott A. Langlois1 and Patricia R. Drackett1. 1Coastal Research and Extension Center, Mississippi State University, Poplarville, MS 39470, 2Coastal Research and Extension Center, Mississippi State University, Biloxi, MS 39532, 3The Crosby Arboretum, Mississippi State University, Picayune, MS 34946 (j.ryals@msstate.edu)

2UG) Discovery of Natural Agents for the Control of Ball Moss (Tillandsia recurvate) on Ornamental Landscape Plants. Brianna Slade1, 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 Marble1,* and Stephen F. Enloe2. 1University of Florida/IFAS Mid-Florida Research and Education Center, 2725 S. Bionion Rd., Apopka, FL 32703, 2University 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 Marshall1,*, Terri Starman1, H. Brent Pemberton2, Calvin Trostle3, 1
5UG) Comparison of Slow-Release Fertilizer and Long-term Composting for Performance of Cool and Warm Season Annuals. Alvarez, Phoebe*, Steve George, and Derald A. Harp. 1Texas A&M University-Commerce, Commerce, TX 75429; 2Texas 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, James DelPrince, Kathryn Fontenot, Anthony Bowden, Scott Langlois, and Patricia Knight. 1815 Poppins 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@lsu.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 (Acanthoecus lagerstroemiae) and its Application in Evaluating the Effect of Different Plant Nutrient Conditions on Insect Performance. Runshi Xie, Bin Wu, Mengmeng Gu, and Hongmin Qin. 1Department of Horticultural Sciences, Texas A&M University, College Station, TX 77843, USA, 2Department of Horticultural Sciences, Texas A&M AgriLife Extension Service, College Station, TX 77843, 3Department 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, Carol Robacker, and Nirmal Joshee. 1Department of Horticulture, University of Georgia Griffin-Campus, Griffin, GA 30223, 2College of Agriculture, Family Sciences and Technology, Fort Valley State University, Fort Valley, GA 31030 (bpenissi@uga.edu)

13G) A public-private partnership to uncover genetic treasures in Rubus. Katelyn Sheehan-Lust, Gina Fernandez, and Cherie Oshenfeld. 1Department of Horticultural Science, NCSU Raleigh NC, 2Pairwise, 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, Margaret Worthington, and Patrick Conner. 1316 Plant Science, Department of Horticulture, University of Arkansas, Fayetteville, AR 72701, 2Department 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. Susnan Ru, Craig Hardner, Katherine M. Evans, Dorrie Main, Patrick A. Carter, Julia Harshman, Paul Sandefur, Daniel Edge-Garza and Cameron Peace. 1Auburn University, Auburn, AL, 36849, 2Queensland Alliance for Agriculture and Food Innovation, The University of Queensland, Brisbane, 4072, Australia, 3Department of Horticulture, Washington State University Tree Fruit Research & Extension Center, Wenatchee, WA 98801, USA, 4Department of Horticulture, Washington State University, Pullman, WA, 99164 USA, 5School of Biological Sciences, Washington University, Seattle, WA 98195, USA.
State University, Pullman, WA, 99164, USA, 2Duda Farm Fresh Foods, Salinas, CA 92908, USA, 3FallCreek Farm and Nursery, Inc., Lowell, OR 97452, USA (szr0099@auburn.edu)

17G) Comparing Sugar Profiles in Southern Highbush, Rabbiteye, and Northern Highbush Blueberry Cultivars. Jamal Mohammed1*, Kathleen S. Amaran1, Renée M. Holland2, Dario J. Chavez1, and Rachel A. Ille1. 1Department of Horticulture, University of Georgia, UGA—Cowart Building, 210 Cowart Street, Griffin, GA 30223, 2ANR 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 Bigio1, Rachel A. Ille1, Sudhagard Mani1, and Dario J. Chavez1. 1Department of Horticulture, University of Georgia, Griffin Campus, GA 30224. 2College 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. Myers1*, Renee T. Threlfall1, Yue Chen2, and Anthony L. Gunderman2. 12650 N. Young Avenue, Food Science Department, University of Arkansas, Fayetteville, AR 72704. 2313 Fert 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 Johns1*, Margaret Worthington1, Mason Chizk1, Lacy Nelson1, John R. Clark1, Rishi Aryal2, and Hamid Ashrafi3. 1316 Plant Science, Department of Horticulture, University of Arkansas, Fayetteville, AR 72701, 2North Carolina State University Department of Horticultural Sciences, 234 Kilgore Hall Campus Box 7609, Raleigh, NC 27695. (cxyj025@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. (hnw111@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*1 and Edgar Vinson2,111 Funchess Hall, Department of Horticulture, Auburn University, AL 36849, 2Chilton Research and Extension Center, Clanton, AL 35045. (jds0017@auburn.edu)

25G) Expanding Color and Quality Standards for Fresh-market Muscadine Grapes. J. Cody Rawls1*, Renee T. Threlfall1, Penelope Perkins-Vezzie2, and Margaret L. Worthington1. 12650 N. Young Avenue, Food Science Department, University of Arkansas, Fayetteville, AR 72704, 2Plants for Human Health Institute, Department of Horticulture, 600 Laureate Way, Kannapolis, NC 28081. 3316 Plant Science Department, University of Arkansas, Fayetteville, AR 72701. (rthrelf@uark.edu)

26) Rhizosphere microbiome of grapefruit grown in Florida flatwood soils. John M. Santiago1, Davie M. Kadyampakeni1, and Lorenzo Rossi1*. 1Horticultural Sciences Department, University of Florida, IFAS, Indian River Research and Education Center, Fort Pierce, FL; 2Soil and Water Sciences Department, University of Florida, IFAS, Citrus Research and Education Center, Lake Alfred, FL. (lrossi@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-Perry1*, Kyle Freedman2 and Mark Hoffmann2. 1North Carolina Agriculture and Technical State University, Department of Agriculture and Environmental Systems, Greensboro NC 27441, 2Department of Horticultural Sciences, NC State University, Raleigh NC 27695. (kmckenzieperry@aggies.ncat.edu).

28) Seedless Muscadine Fruit Chemistry Changes with Low Temperature Storage. Penelope Perkins-Vezzie1*, Mark Hoffman1, and Guoying Ma1. 1North Carolina State University, Plants for Human Health Institute, Department of Horticultural Science, 600 Laureate Way, Kannapolis, NC 28081; 2North 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. Muras1*, Justin J. Scheiner1, and Michael Cook2, Department of Horticultural Sciences, 1Texas A&M University, HSF, 2134 TAMU, College Station, TX 77843, 2Texas 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 Magar1, George Vellidis2, Wesley Porter2, Vasileios Liakos2, Jose H. Andreis2, and Dario J. Chavez1, Department of Horticulture, University of Georgia, Griffin Campus, Griffin, GA 30223, 1Department of Crop and Soil Sciences, University of Georgia, Tifton Campus, Tifton, GA 31793, 2Auston LTD ME, Marau, RS 99150-000, Brazil. (s45674@uga.edu)

32) Southern Highbush Blueberry Cultivar Fruit Quality Evaluation. David H. Picha*, 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. Elliott1*, Jamal Mohammed1, Dario J. Chavez1, Sudhagar Mani2, Renée M. Holland3, and Rachel A. Itle4, 1Department of Horticulture, University of Georgia, UGA– Cowart Building, 210 Cowart Street, Griffin, GA 30223, 2College of Engineering, University of Georgia, 110 Riverbend Road, Athens, GA 30602, 3ANR 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*, Brian T. Lawrence, Juan Carlos Melgar, and Guido Schnabel. 1 105 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*, 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 Duncan1, Sarah Cato2, Lizzy Herrera2, Aaron Cato2, and Amanda McWhir3, 1Department of Biology, University of Arkansas at Little Rock, 2801 S. University Ave., Little Rock, AR 72204, 2Department of Horticulture, University of Arkansas Cooperative Extension Service, 2301 S. University Ave., Little Rock, AR 72204. (msduncan@uark.edu)

37G) Survey of Wine Purchasing and Consumption Habits of Consumers of Commercial Arkansas Wines. Amanda J. Fleming* and Renee T. Threlfall, 12650 N. Young Avenue, Department of Food Science, University of Arkansas, Fayetteville, AR 72704. (ajfleming@uark.edu)

38) Postharvest Evaluation of Gold Kiwifruit Cultivars Grown in Central Alabama. James D. Spiers*, 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* 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.*, Jessica Ewer, and Thomas W. Zimmerman, Agricultural Experiment Station, University of the Virgin Islands, 10,000 Castle Burke, Kingshill, VI 00850. (daryl.richars@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*, 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. Kirkpatrick1*, Matthew B. Bertucci1, Jeremie Kouame2, Kayla Knepp1, Rachel C. Woody-Pumford1, Jonathan M.
McArthur1, and Conner O. Cravens1,316 Plant Science, Department of Horticulture, University of Arkansas, Fayetteville, AR 72701,115 Plant Science, Department of Crop, Soil, and Environmental Sciences, University of Arkansas, Fayetteville, AR 72701. (dedililio@uark.edu)

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 CO2 Responses of Net Assimilation are Impacted by Seed Priming and Salt Stress in Lettuce (Lactuca sativa L.). Bikash Adhikari*, Omolayo J. Oluronwa, 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 Ewer1*, Thomas W. Zimmerman1, and Henry O. Awika12. 1School of Agriculture, Agricultural Experiment Station, University of the Virgin Islands, 10,000, Kingshill, VI 00850. 2School 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*, Clinton Williams2, Cade Coldren1, Catherine Simpson1, Department of Plant and Soil Science, Texas Tech University, Lubbock, TX 79409, 2US Arid-Land Agricultural Research Center, Maricopa, AZ 85138. (emstamm@ttu.edu)

47UG) The Effects of Salinity on Broccoli (Brassica oleracea) and Purslane (Portulaca oleracea) Microgreens. Gretchen Plocèk* 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*, Matthew Siebecker1, Clinton Williams2, and Catherine Simpson1 1Department of Plant and Soil Science, Texas Tech University, Lubbock, TX 79409, 3US 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*1,2, P. Perkins-Vezzie2, Elina Coneva1, and M. Price1, 1Department of Horticulture, Auburn University, 101 Funchess Hall, Auburn, AL 36849. 2600 N.C. State University, Laureate Way, Kannapolis, NC 28081. 3Chilton 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 (H2O2) 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.1, Calob Guerra1, and Sudeep Bag2, 1Department of Horticulture and 2Department of Plant Pathology, University of Georgia, Tifton Campus, Tifton, GA 31793 (jc.diaz@uga.edu).

55G) Seed Priming and Salt Stress Impacts Germination, Phenotypic Traits, and Biomass Accumulation of Lettuce (Lactuca sativa L.). Bikash Adhikari*, Omolayo J. Oluronwa, 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 Hu2, Izzy Gonzales1*, Lynn Brandenberger2, and Matthew Beartrack2. 1Department of Environmental Science, Oklahoma State University, Stillwater, OK 74078, 2Department 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-Pumford1*, Matthew B. Bertucci1, Drew Kirkpatrick1, Darrin G. Henderson2, and Kayla Knepp1. 1Department of Horticulture, University of Arkansas, Fayetteville, AR 72701, 2University 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 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 Rodrigues1*, Kristin Woods2, Laurel Dunn3, 1Department of Horticulture, Auburn University, Auburn, AL 36849 (crodrigues@auburn.edu), 2Alabama Cooperative Extension System, Auburn University, Auburn, AL 36049, 3Department of Food Science & Technology, University of Georgia, Athens, GA 30602.

60G) Plant Selection for Floating Treatment Wetlands in Brackish Waters. Andrea C. Landaverde1*, Sarah A. White2, and William H.J. Strosnider1. 1Department of Biological Sciences, Clemson University, Clemson, SC 29631, 2Department of Plant and Environmental Sciences, Clemson University, Clemson, SC 29631, 3Baruch 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 Jesus1*, Kate Cassity-Duffey1, Miguel Cabrera2, Andre da Silva3, Bhabesh Dutta4, and Timothy Coolong1, 11111 Miller Plant Sciences, University of Georgia, Athens, GA 30602, 24119 Plant Sciences Bldg., University of Georgia, Athens, GA 30602, 3124 Funchess Hall, Auburn University, Auburn, AL 36849, 42360 Rainwater Rd., University of Georgia, Tifton, GA 31793. (tcoolong@uga.edu)


64UG) Influence of Flue Gas Desulfurization Gypsum on Phosphorus Loss in Pine Bark Substrates. Landon Erbrick1*, Paul Bartley1, Dexter Watts2, Allen Torbert2, 1101 Funchess Hall, Department of Horticulture, Auburn University, Auburn, AL 36849, 2USDA-ARS National Soil Dynamics Laboratory, Auburn, AL 36832. (pb600044@auburn.edu)

65) Pollinating the Field to Achieve the Yield; Program for Native Habitat On-Farm Assistance. Olivia Fuller1*, Camila Rodrigues2, Kristin Woods1, Ayanava Mujumdar1, 1Alabama Cooperative Extension System, Auburn University, Auburn, AL 36049, 2Department 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. Birnbaum1*, Benjamin G. Wherley2, David W. Reed1, 1Department of Horticulture, Texas A&M University, College Station, TX 77843-2133, 2Horticultural Sciences, Texas A&M University, College Station, TX 77843-2133. (abirnbaum@tamu.edu)

Extension

Horticulture and Natural Resources, Kansas State University, Manhattan, KS 66506. 2Texas A&M University, Commerce, TX 75429 (Derald.Harp@leomail.tamuc.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 Hallman1,*1, Davie Kadymapkeni2, Alan Wright3, Evan Johnson1 and Lorenzo Rossi1. 1Horticultural Sciences Department, University of Florida, IFAS, Indian River Research and Education Center, Fort Pierce, FL; 2Soil and Water Sciences Department, University of Florida, IFAS, Citrus Research and Education Center, Lake Alfred, FL. 3Soil and Water Sciences Department, University of Florida, IFAS, Indian River Research and Education Center, Fort Pierce, FL; 3Plant 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. Bradley1,*1, Laura Barth1, Christine Bradish1, Susan Caldwell2, Lauren Campbell2, Matthew Ross2, 1NC State University Department of Horticultural Science, Box 7609, Raleigh, NC 27695, 2Longwood 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 Ye1, Bodie Pennisi2,*1, and Lloyd Rieber1. 1Michigan Tech University, William G. Jackson Center for Teaching and Learning, Houghton, MI, 49931, 2Department of Horticulture, University of Georgia Griffin-Campus, Griffin, GA 30223, 3College of Education, University of Georgia-Athens, Athens, GA 30602, (bpennisi@uga.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 Haskett1 Christine Bradish1,*1, Alta Zhang1, Emilee Weaver1, Joanna Massey Lelekacs1, and Lucy Bradley2, 1North Carolina Botanical Garden, University of North Carolina at Chapel Hill, 2Department of Horticultural Science, North Carolina State University, 3Extension Information Technology, North Carolina State University, 4NC Central Regional State Psychiatric Hospital. (cmbradis@ncsu.edu)

8:45 Establishing the Arkansas Quality Wine Program. Renee T. Threlfall1,*1, Amanda J. Fleming1, and Amanda L. McWhirt2, 12650 N. Young Avenue, Food Science Department, University of Arkansas, Fayetteville, AR 72704, 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. Lamm1, Kristin E. Gibson1,*1, Kevan. W. Lamm1, Jeb S. Fields1, and James Owen1, 132 Four Towers, Department of Agricultural Leadership,
9:15 Informed Decision-making or Guesswork? Examining How Residents Adjust Their Irrigation Based on Local Rainfall. Colby Silvert\textsuperscript{1,*}, Cody Gusto\textsuperscript{1}, John Diaz\textsuperscript{1}, Laura Warner\textsuperscript{1}, and Robin Grantham\textsuperscript{1}, \textsuperscript{1}Department of Agricultural Education & Communication, University of Florida, 305 Rolfs Hall, PO Box 110540, Gainesville, FL 32611-0690, \textsuperscript{2}Southwest Florida Water Management District, 2379 Broad Street, Brooksfield, FL 34604. (colby.silvert@ufl.edu)

9:30 Integrated Extension Approaches to Support Small-Scale Hops Production in Arkansas. Lizzy Herrera\textsuperscript{1,*}, Amanda McWhirt\textsuperscript{1}, Renee Threlfall\textsuperscript{2}, Aaron Cato\textsuperscript{1}, Sarah Cato\textsuperscript{1}, and James McClellan\textsuperscript{3}, \textsuperscript{1}Department of Agricultural Education & Communication, University of Florida, 305 Rolfs Hall, PO Box 110540, Gainesville, FL 32611-0690, \textsuperscript{2}University of Arkansas System Division of Agriculture, Little Rock, AR 72204, \textsuperscript{3}University of Arkansas System Division of Agriculture, Fayetteville, AR 72704. (lherrera@uada.edu)

9:45 Helping Small Farmers Transition to Federal Hemp Regulations. Sanjun Gu\textsuperscript{1,*} 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\textsuperscript{1,*}, Kevan W. Lamm\textsuperscript{1}, Kristin E. Gibson\textsuperscript{1}, Jeb S. Fields\textsuperscript{2}, and James Owen\textsuperscript{3}, \textsuperscript{1}Department of Agricultural Leadership, Education and Communication, University of Georgia, Athens, GA 30602, \textsuperscript{2}121549 Old Covington Highway, Hammond Research Station, Louisiana State University, Hammond, LA 70403, \textsuperscript{3}University of Arkansas System Division of Agriculture, Fayetteville, AR 72704. (alamm@uga.edu)

10:30 A Perspective on Tweeting. Eric T. Stafne\textsuperscript{1,*}, 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\textsuperscript{1,*}, Amanda McWhirt\textsuperscript{1,*}, Lizzy Herrera\textsuperscript{1}, Aaron Cato\textsuperscript{1,*} and Mary Poling\textsuperscript{2}, \textsuperscript{1}University of Arkansas System Division of Agriculture, Cooperative Extension Service, Little Rock, AR 72204, \textsuperscript{2}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\textsuperscript{1,*} 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\textsuperscript{1,*}, Colby Silvert\textsuperscript{1,*}, John Diaz\textsuperscript{1,*}, Laura A. Warner\textsuperscript{1,*}, and Rachel Mallinger\textsuperscript{2}, \textsuperscript{1}Department of Agricultural Education & Communication, University of Florida, Gainesville, FL 32611-0690, \textsuperscript{2}Department of Entomology and Nematology, University of Florida, Gainesville, FL 32611-0690. (cgusto@ufl.edu)

11:30 Industry Certification Post-Pandemic. Bodie Pennisi\textsuperscript{1,*} and Greg Huber\textsuperscript{2}, \textsuperscript{1}Department of Horticulture, University of Georgia Griffin-Campus, Griffin, GA 30223, \textsuperscript{2}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\textsuperscript{1,*} and Amanda McWhirt, 2301 S. University Ave., Department of Horticulture, University of Arkansas System Division of Agriculture, Fayetteville, AR 72704.
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*, Ann Chambliss¹, Harli Willis³, Edward Sikora³, Katelyn Kesheimer¹, Jeremy Pickens², Edgar Vinson¹, Elina Coneva², Joe Kemble³, Andre da Silva³, David Han³, Rishi Prasad⁵, Audrey Gamble³, Steve Li⁶, Adam Rabinowitz⁶, Jim Jacobi⁷, Kassie Conner⁷, Sonja Thomas⁷, and Matt Ulmer¹, ¹Department of Entomology and Plant Pathology, Auburn University, Auburn, AL, 36849, ²Ornamental Horticulture Research Center, PO Box 8276, Mobile, AL 36689, ³Chilton Regional Research and Extension Center, 120 County Road 756, Clanton, AL 35045, ⁴Department of Horticulture, Auburn University, Auburn, AL 36849, ⁵Department of Crop, Soil, and Environmental Sciences, Auburn University, Auburn, AL 36849, ⁶Department of Agricultural Economics and Rural Sociology, Auburn University, Auburn, AL 36849, ⁷C. Beaty Hanna Horticulture and Environmental Center, 2612 Lane Park Road Birmingham, AL 35223, ⁸Plant Diagnostic Center, 143 ALFA Building, Auburn University, Auburn, AL 36849, ⁹245 E Duncan Hall, Auburn University, Auburn, AL 36849, ¹⁰105 Duncan Hall, Auburn University, Auburn, AL 36849. (acato@uada.edu)

12:15 Horticulture CSI: Long Beach Radish Case Closed. Gary R. Bachman¹*, Christine E.H. Coker¹ and Patricia R. Knight¹, ¹Coastal Research and Extension Center, Mississippi State University, 1815 Popps Ferry Road, Biloxi, MS 39532, ²Coastal Horticulture Research, South Mississippi Branch Station, Poplarville, MS (gary.bachman@msstate.edu)

1:00 Strategic Planning for Georgia’s Extension Master Gardener Program: Environmental Attitudes as a Measure of Commitment Among Generations. Sheri Dorn³*, Paul Pugliese⁴, Joel Burnsed⁴, Timothy Daly⁴, Cynthia McCrary⁴, and Kathy Hensley⁵, ⁴1109 Experiment Street, Department of Horticulture, University of Georgia, Griffin, GA 30223, ³University of Georgia Extension, Bartow County, 320 West Cherokee Avenue Room 112 Cartersville, GA 30120-3059, ¹University of Georgia Extension, Walton County, 100 North Broad St. Monroe, GA 30655, ⁴University of Georgia Extension, Gwinnett County, 750 South Perry Street, Suite 400 Lawrenceville, GA 30046-4804, ³University of Georgia Extension, Fayette County, 140 Stonewall Avenue W Suite 209 Fayetteville, GA 30214-1520, ⁴University of Georgia Extension, Bibb County, 145 First Street Macon, GA 31201-2627. (sdorn@uga.edu)

1:15 Extension Gardener Plant Toolbox: Reaching Wider Audiences through National Partnerships. Lucy K. Bradley¹,², Kathleen A. Moore¹, Matthew P. Ross³, Andy Pulte⁴, Grant L. Thompson⁵, Ryan Contreras⁵, Laura Barth⁶, and Lis Meyer⁷, ¹Department of Horticulture, North Carolina State University, 2721 Founders Dr., Raleigh, NC 27695, ²Longwood Gardens 1001 Longwood Rd., Kennett Square, PA 19348, ³Department of Plant Science, University of Tennessee Institute of Agriculture, 2505 E J Chapman Dr., Knoxville, TN 37996, ⁴Department of Horticulture, Iowa State University, 137 Horticulture Hall, Ames, IA 50011, ⁵Agriculture & 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-Ballard¹,², Natalie R. Bumgarner³, Ellen M. Bauske³, Pam J. Bennett¹, David D. Close⁴, Sheri Dorn⁵, Richard E. Durham⁶, Carl I. Evensen⁷, Terri James⁸, Jeff S. Keuhny⁹, Bodie Pennisi¹, Robert F. Polomski³, Kerry Smith¹⁰, and Katie Walberg¹, ¹School of Plant, Environmental, and Soil Sciences, Louisiana State University, Baton Rouge, LA 70803, ²Plant Sciences Department, University of Tennessee, Knoxville, TN 37996, ³Department of Horticulture, University of Georgia, Griffin, GA 30223, ⁴The Ohio State University, Springfield, OH 45505, ⁵School of Plant & Environmental Sciences, Virginia Tech University, Blacksburg, VA 24061, ⁶Department of Horticulture, University of
2:00 County Fair Grounds as Food Innovation Hubs in Arkansas Despite the Pandemic. Amanda Philyaw Perez1*, Renee Threlfall2, Ruben Morawicki3, Angela Gardner2, and Mallory Eggleton1, 1Department of Environmental Horticulture, University of Florida, IFAS, Gainesville, FL 32608, 2USDA Forest Service, Southern Research Station, Southeast Climate Hub, Research Triangle Park, NC 27709, 3Department of Horticulture, Southern University and A&M College, Baton Rouge, LA 70803. (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 Yeager1* and Michael Gavazzi2, 1Department of Environmental Horticulture, University of Florida, IFAS, Gainesville, FL 32611, 2USDA 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. Baker1*, Hikaru H. Peterson2, and Cheryl R. Boyer3, 1408 Sabal Palm Drive, Level 2, Department of Agricultural Education and Communication, University of Florida, Gainesville, FL 32611, 21994 Buford Ave., Department of Applied Economics, University of Minnesota, St. Paul, MN 55108, 31712 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. Boyer1* and Matthew McKernan2, 1712 Claflin Rd., Department of Horticulture and Natural Resources, Kansas State University, Manhattan, KS 66506, 27001 W. 21st 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. Wilson1*, T. Casey Barickman1, and Scott Cagle2, 1Mississippi State University, North Mississippi Research & Extension
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. (jrc Clark@uark.edu)

8:15 Wine Production of ‘Indulgence’ and ‘Dazzle’ Wine Grapes for the Mid-South. Renee T. Threlfall*, John R. Clark2, and Margaret L. Worthington2, 2650 N. Young Avenue, Food Science Department, University of Arkansas, Fayetteville, AR 72704, 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. Wallace1, Peter A. Ampim2, D. Thayne Montague3, Dale Rankin4, and Larry Stein5. 1Department of Horticultural Sciences, Texas A&M AgriLife Extension, 1102 E. Drew St., Lubbock, 79403, 2Cooperative Agriculture Research Center, MS 2008, CARC Building, Prairie View A&M University, Prairie View, 77446, 3Department of Plant & Soil Sciences, Texas Tech University and Texas A&M AgriLife Research, Lubbock, 79409, 4Texas A&M AgriLife Extension, Atascosa County, 25 E. 5th St., Leaning, and 5Department 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*, Matthew B. Bertucci1, Amanda L. McWhirt2, Nilda R. Burgos3, Aaron J. Cato2, Drew E. Kirkpatrick4, and Rachel C. Woody-Punford5, 1316 Plant Science, Department of Horticulture, University of Arkansas, Fayetteville, AR 72701, 22301 S. University, Department of Horticulture, University of Arkansas Cooperative Extension Service, Little Rock, AR 72204, 31354 W Alheimer 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 Montague1,2,*, Russell W. Wallace2, Peter A. Ampim3, Dale Rankin4, and Larry Stein5, 1Department of Plant and Soil Science, Texas Tech University, Lubbock, TX 79409, 2Texas A&M AgriLife Research and Extension Center, Lubbock, TX 79403, 3Cooperative Agriculture Research Center, Prairie View A&M University, Prairie View, TX 77446, 4Texas A&M AgriLife Extension, Atascosa County, Leaning, TX 78050, 5Department 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, HSB, 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. (edm001@auburn.edu)

11:00 Evaluation of Size-Controlling, Pest Resistant Peach Rootstocks for Alabama. Elina Coneva, Department of Horticulture, Auburn University, Auburn, AL, 36849. (edm001@auburn.edu)

Addendum
11:15 The impact of climate variability on small fruit production. Melba R. Salazar-Gutierrez, 112 Punchess 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 Silva1,2, Olivia Fuller2, Ayanava Majumdar2, Edward Sikora2, and Alvin Simmons2, 1Department of Horticulture, Auburn University, Auburn, AL 36849, 2Tuscaloosa Co. Extension Office, Tuscaloosa, AL 35401, 3Department Entomology and Plant Pathology, Auburn, AL 36849. 4USDA - 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 Silva1, Michael Phillips1, Joe Kemble1, and Alex Harkess2, 1Department of Horticulture, Auburn University, Auburn, AL 36849, 2Department of Soil, Crop, and Environmental Science, Auburn University, Auburn, AL 36849. (azb0207@auburn.edu)

1:30 Evaluation of Cucurbita Germplasm for Resistance to Whitefly Transmitted Viruses. Alexander Luckew1, Geoffrey Meru2, Emily Wang2, Rodrick Mwatuwa3, Mathews Paret3, Renato Carvalho3, Melanie Kalischuk3,4, Andre Luiz Bisaia Ribeiro da Silva1, Joana Candiani1, Babu Srinivasan5, Saritha Raman Kavalappara5, RRD Naga Charan Konakalla6, Sudeep Bag4, and Cecilia McGregor1*, 1Department of Horticulture, University of Georgia, Athens, GA 30602, 2Horticultural Sciences Department, University of Florida, Homestead, FL 33031, 3Department of Plant Pathology, University of Florida, Quincy, FL 32351, 4Department of Plant Pathology, University of Georgia, Tifton, GA 31793, 5Department of Entomology, University of Georgia, Griffin, GA 30223, 6Department of Horticulture, Auburn University, Auburn AL 36849, 7Department of Plant Agriculture, University of Guelph, Guelph, Ontario, Canada N1G 2W1. (cmcgreg1@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-Duffey1, Nicholas Basinger2, Bhabesh Dutta3, and Timothy Coolong1*, 1Department of Horticulture, University of Georgia, Athens, GA 30602, 2Crop and Soil Sciences Department, University of Georgia, Athens, GA 30602, 3Department 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. Olorunwa1,2, Bikash Adhikari1, Aiong Shi2, and T. Casey Barickman1, 1Department of Plant and Soil Sciences, Mississippi State University, North Mississippi Research and Extension Center, Verona, MS, 38879, 2Department of Horticulture, University of Arkansas, Fayetteville, AR 72701.
20

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.

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.

Breeding for Novel Traits in Peppers (Capsicum spp.) at Texas A&M. Kevin Crosby1,*, Daniel Leskovar2, and John Jifon3, 1Department of Horticultural Sciences, Texas A&M University, College Station, TX 77843, 2Texas A&M AgriLife Research and Extension Center, Uvalde, TX 78801, 3Texas A&M AgriLife Research and Extension Center, Weslaco, TX 78596.

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

Amino Acid Production in Vine Decline Susceptible and Resistant Melon Plants (Cucumis melo L) During Plant-Pathogen Interactions. Sixto A. Marquez1,5*, Carlos A. Avila1,2, Amir M.H. Ibrahim3,5, Kevin M. Crosby1,5, Jashbir Singh1,5, Bhimanagouda S. Patil1,4,5, and Herika P. Pessoa1,5, 1Vegetable & Fruit Improvement Center, Texas A&M University, College Station, TX 77845, 2Texas A&M AgriLife Research and Extension Center, Weslaco, TX 78596, 3Texas A&M University, College Station, TX 77845, 4Department of Soil and Crop Science, Texas A&M University, College Station, TX 77845, 5USDA National Center of Excellence for Melon at the Vegetable and Fruit Improvement Center of Texas A&M University, College Station, TX 77845, 6Universidade Federal de Viçosa-UFV. Minas Gerais, Brasil. Casa Diogo Alves de Melo Avenida P.H Rolfs, S/N, Campus Universitário. (sixto@tamu.edu)

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.


Heat Stress Responses of Tomato Plants Grafted onto Wild Relative Rootstocks S. pennellii and S. peruvianum. Chungeun Lee* and Daniel I. Leskovar, Texas A&M AgriLife Research and Extension Center, Uvalde, TX 78801.
9:15 Hubbard Squash Trap Crop as Attract- and-Kill Integrated Pest Management Strategy to Reduce Squash Bugs. Ayana Majumdar1* and Matthew Price2, 1Department of Entomology and Plant Pathology, Auburn University, Auburn, AL 36849, 2Chilton 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, Clanton, 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-Brown1*, Gary Vallad2-3, Tong Geon Lee1,3,4, and Samuel Hutton1,4, 1Horticultural Sciences Department, University of Florida, Gainesville, FL 32611, 2Plant Pathology Department, University of Florida, Gainesville, FL 32611, 3Gulf Coast Research and Education Center, University of Florida, Wimauma, FL 33598, 4Plant 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. (dleskovar@tamu.edu)

FLORICULTURE, ORNAMENTALS 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. Fields1*, 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 Hopf1*, Paul Daiber1, Steven Anderson2, Brian Pearson2, Gerrit Hoogenboom2,3, 1Department of Agricultural and Biological Engineering, IFAS, University of Florida, Gainesville, FL 32611, 2Department of Environmental Horticulture, Mid-Florida Research and Education Center, IFAS, University of Florida, Apopka, FL 32703, 3Institute 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 Marshall1*, Terri Starman1, H. Brent Pemberton2, Calvin Trostle3, 1Department of Horticultural Sciences, Texas A&M University, College Station, TX 77843, 2Texas A&M AgriLife Research and Extension Center, Overton, TX 75684, 3Texas 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. White1*, Morgan Tomlin1, Mohammad Nayeb Yazdi2, and James S. Owen Jr.1, 1Department of Plant and Environmental Sciences, Clemson University, Clemson, SC, 29634, 2School of Environment and Natural Resources, Ohio State University, Wooster, OH, 44691. (ping.yu@ufl.edu)
9:15 Build Tools for Crapemyrtle Bark Scale (CMBS) Pest Management. Bin Wu1,3, Runshi Xie1,3, Mengmeng Gu1,2, and Hongmin Qin2,* 1Department of Horticultural Sciences, Texas A&M University, College Station, TX 77843, 2Texas A&M AgriLife Extension Service, College Station, TX 77843, 3Department 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)

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. Landaverde1,*, Sarah A. White2, and William H.J. Strosnider3, 1Department of Biological Sciences, Clemson University, Clemson, SC 29631, 2Department of Plant and Environmental Sciences, Clemson University, Clemson, SC 29631, 3Baruch 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)
9:15 Break

9:30 Soil management practices for Indian River grapefruit production under citrus greening. Lorenzo Rossi¹, 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 McGee¹, Bruce Schaffer², Gerardo Nunez³, Jose X. Chaparro¹, Ali Sarkhosh¹*, ¹Horticultural Sciences Department, University of Florida, Gainesville, FL 32611, ²Tropical 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-Herrera¹*, Lorenzo Rossi¹, and Ali Sarkhosh¹, ¹Horticultural Sciences Department, University of Florida, Gainesville, FL 32611, ²Horticultural 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 Christian¹, Eric H Roalson², and Amit Dhingra¹.¹ Department of Horticulture, Washington State University, Pullman, WA, ²School of Biological Sciences, Washington State University, Pullman, WA, ³Department of Horticultural Sciences, Texas A&M University, College Station, TX, amit.dhingra@ag.tamu.edu

8:15 Beyond Ethylene – AOX-mediated Fruit Ripening. Seanna Hewitt¹, Evan Stowe¹, and Amit Dhingra¹.¹ Department of Horticulture, Washington State University, Pullman, WA 99164, ²Department 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. (https://uga.edu)

8:45 Offseason Lettuce Production in Field and Hydroponic Environments: Impact on Sesquiterpene Lactone and Sugar Content. Niels Maness*, John Untersuehtz, Mason McMellon, 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 Reilly¹*, Niels Maness², John Nickel², and Katie Stenmark², ¹Department of Nutritional Sciences, ²Department 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*, David H. Picha, and Qinglin Wu. 1School of Renewable Natural Resources and 2School 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, Yi-Wen Wang, Shan Jing, Ann Loraine, D. Scott NeSmith. 1Department of Horticulture, University of Georgia, Athens, GA 30606, 2Department of Horticulture, University of Georgia, Griffin, GA 30223 and 3College 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


1:45 pm. Watermelon Cultivar Incidence and Yield Response in Fields in North and South Carolina Containing Fusarium oxysporum f. sp. niveum. Jonathan R. Schultheis*1, Anthony Keinath2, and Lina Quesada-Ocampo3. 1Department of Horticultural Science, North Carolina State University, Raleigh, NC 27695, 2Plant and Environmental Sciences Department, Clemson University, Coastal Research and Education Center, Charleston, SC 29414, 3Department 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 Bhattacharya1,2, Takshay Patel1, Edgar Correa1,2, Todd C. Wehner3, Kevin M. Crosby1, Michael J. Thomson4, Richard Metz5, Shichen Wang6, Marcel Brun7, Charles D. Johnson8, and Subas Mall9,10. 1Department of Horticultural Sciences, Texas A&M University, College Station, TX 77843, 2Texas A&M AgriLife Research and Extension Center, Uvalde, TX 78801, 3Department of Horticultural Science, North Carolina State University, Raleigh, NC 27695, 4Department of Soil and Crop Sciences, Texas A&M University, College Station, TX 77843, 5Genomics 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 Adams1, Samuel Josiah2, Reeve Legendre3, and Cecilia McGregor1,2,. 1Institute of Plant Breeding, Genetics & Genomics, University of Georgia, Athens, GA 30602, 2Department of Horticulture, University of Georgia, Athens, GA 30602, 3Plant, Environmental and Soil Science, Louisiana State University, Baton Rouge, LA 70803. (cmcgre1@uga.edu)

Poster

Food-Waste Compost as Substrate Amendment for Production of Tomato and Watermelon Seedlings. Matthew B. Bertucci*, Kristen E. Gibson2, Christopher A. Baker2, Drew E. Kirkpatrick1, Rachel C. Woody-Pumford1, and Kayla Knepp1. 1Department of Horticulture, University of Arkansas, Fayetteville, AR 72701, 2Food 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*1, Bode Olukolu2, Arthur Villordon3, and Jonathan Lynch1 1Department of Plant Science, Penn State University, University Park, PA 16802, 2Department of Entomology and Plant Pathology, Institute of Agriculture, University of Tennessee, Knoxville, TN 37996, 3LSU 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*, Jonathan R. Schultes2, 1NC Cooperative Extension- Johnston County, 2736 NC 210 Hwy. Smithfield, NC 27577, 2Department 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. Mussoline1, R. Hochmuth2, C. Christensen3, S. Guzman4, and Z. Grabau5 1UF/IFAS Agriculture Extension Agent, East Palatka, FL, 32131, 2UF/IFAS North Florida Research and Education Center- Suwannee Valley, Live Oak, FL, 32060, 3UF/IFAS Hastings Agriculture Extension Center, Hastings, FL, 32060, 4Agricultural and Biological Engineering Department, University of Florida, Indian River Research and Education Center, Fort Pierce, FL, 34945, 5Entomology 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


11:30 Effect of Potassium Fertilization Rate on Sweetpotato Sugar Content. David H. Picha*, Cheston T. Schayot1, and Mark W. Shankle2 1School of Plant, Environmental and Soil Sciences, Louisiana State University Agricultural Center, Baton Rouge, LA 70803, 2Pontotoc 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*, Mark W. Shankle2, Lorin M. Harvey2, Donna J. Peterson3, and Elizabeth P.G. North4 1Extension Center for Government and Community Development, Mississippi State University, Mississippi State, MS 39762, 2Pontotoc Ridge-Flatwoods Branch Experiment Station, Mississippi State
1:15 The Use of Polysulphate as a Potassium Fertilizer for Sweet Potato (Ipomoea batatas) Production in North Carolina. Alex L. Woodley*, Lily Kile1, David Suchof1, Luke Gatiboni1 and Anders Huseth2. 1Department of Crop and Soil Sciences, North Carolina State University, Raleigh, NC 27695, 2Department of Horticultural Science, North Carolina State University, Raleigh, NC 27695

1:30 Characterizing Temporal Sweetpotato Production Trends Through In-Season Environmental, Biomass, and Grade Data. Mariella Carbajal Carrasco1*, Anders Huseth2, Natalie Nelson1, 13110 Faucette Dr, 1Department of Biological and Agricultural Engineering, North Carolina State University, Raleigh, NC 27695, 2Department of Entomology and Plant Pathology, North Carolina State University, Raleigh, NC 27695

1:45 Evaluation of Alternative Sweetpotato Slip Planting Orientations. Alyssa Jane Woodard*, Jonathan Schultheis1, and David Suchoff1. 1Department of Horticultural Science, North Carolina State University, Raleigh, NC 27695, 2Department 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 Huse, Alex 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*, Sydney Gyurek1, Russell Mierop2, Kenneth V. Pecota2, G. Craig Yencho2, Michael W. Kudenov1. 1Department of Electrical and Computer Engineering, North Carolina State University, Raleigh, NC 27695, 2Department 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*, Hoang Nguyen1, Craig Yencho2, Russell Mierop2, Kenneth Pecota2, Cranios Williams1, Michael Kudenov1. 1Department of Electrical and Computer Engineering, North Carolina State University, Raleigh, NC 27606, 2Department 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*, Suzanne Johanningsmeier2, Matthew Allan2, Massimo Iorizzo1,2, Craig Yencho1. 1Department of Horticultural Science, North Carolina State University, Raleigh, NC 27695, 2USDA-ARS, Southeast Area Food Science and Market Quality & Handling Research Unit, 322E Schaub Hall, Raleigh NC, 27695, 3Plants 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. Adriane 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 Hunt¹, Daniela Jones¹ and Cranos Williams². ¹Department of Biological and Agricultural Engineering, North Carolina State University, Raleigh, NC 27695, ²Department 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


Integration of Genomic and Quantitative Strain-level Metagenomic Profiles by Using qRRS in the Sweetpotato Phyllosphere. Alison Adams¹, Priya Voohuluru², Brandon Kristy³, Harper Kirby⁴, Phil A. Wadi⁵, G. Craig Yencho⁶, and Bode Olukolu⁷. ¹UT-ORNL Graduate School of Genome Science and Technology, University of Tennessee, Knoxville, TN 37996, ²The Center for Renewable Carbon, The University of Tennessee Institute of Agriculture, Knoxville, TN 37996, ³Oak Ridge National Laboratory, Oak Ridge, TN 37831, ⁴Department of Biochemistry & Cellular and Molecular Biology, University of Tennessee, Knoxville, TN 37996, ⁵United States Department of Agriculture, Agriculture Research Service, U.S. Vegetable Research, Charleston, SC 29414, ⁶Department of Horticultural Science, NC State University, Raleigh, NC 27695, ⁷Department 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 Ramamoorthy¹, Raju Bheemanahalli², Stephen Meyers³, Mark Shankle⁴, and K. Raja Reddy⁵. ¹Geosystems Research Institute, Mississippi State University, Mississippi State University, MS, 39762, ²Department of Plant and Soil Sciences, Mississippi State University, Mississippi State, MS, ³Department of Horticulture and Landscape Architecture, Purdue University, West Lafayette IN 47907, ⁴Pontotoc 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*, Josielle S. Rezende¹, Christopher A. Clark¹, Don R. Labonte¹, Tristin Watson¹ ¹Department of Plant Pathology and Crop Physiology, Louisiana State University Agricultural Center, Baton Rouge, LA 70803, ²School 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 Corbin¹, Paula Agudelo¹, Johan Desaeger², Adrienne Gorny³, Zane Grabau¹, Zhengfei Guan⁴, Abolfazl Hajihassani⁵, John Mueller⁶, Lina Quesada-Ocampo⁶, Will Rutter⁷, and Phillip Wadl⁸. ¹Department of Plant and Environmental Sciences, Clemson University, Clemson, SC 29634, ²University of Florida Gulf Coast Research and Education Center, Wimauma, FL 33598, ³Department of Entomology and Plant Pathology, North Carolina State University, Raleigh, NC 27695, ⁴Department of Entomology and Plant Pathology, University of Florida, Gainesville, FL 32611, ⁵Department of Entomology and Plant Pathology, University of Georgia, Tifton, GA 31979, ⁶USDA-ARS, Charleston, SC 29414

5:00 Adjourn for the Day
Saturday, February 12, 2022

8:00 Call to Order and Announcements


8:30 Utilizing Plant Hormones as Herbicide Safeners in Sweetpotato. Matthew Cutulle and Giovanna 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. Department of Plant Pathology and Crop Physiology, Louisiana State University Agricultural Center, Baton Rouge, LA 70803. 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, Matheus M. Nogueira, Srikanth K. Kariakil, Gustavo B. de Lima, Te-Ming Tseng, and Nilda Roma-Burgos. Department of Crop, Soil, and Environmental Sciences, University of Arkansas, Fayetteville, AR 72704. Department of Plant and Soil Sciences, Mississippi State University, Starkville, MS

9:30 Morning Break

9:45 Resistance to Wireworm / Diabrotica / Systena Among Sweetpotato Cultivars and Advanced Lines. T. J. Douglas, Stephen L. Meyers, Ashli Brown, Blake Layton, and Fred Musser. Department of Biochemistry, Molecular Biology, Entomology and Plant Pathology, Mississippi State University, Mississippi State, MS 39762. Currently at Auburn University. Pontotoc Ridge-Flatwoods Branch Experiment Station, Mississippi State University, Pontotoc, MS 38863. Currently at Purdue University, 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


10:30 Effect of Flumioxazin and S-metolachlor on Covington sweetpotato planted vertically or horizontally. Keith D. Starke, Levi D. Moore, Colton D. Blankenship, Katherine M. Jennings, David W. Monks, Jonathan Schultheiss. Central Crops Research Station, North Carolina State University, Clayton, NC 27520. 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, Tamara Abernethy, Chunying Li, Ken Pecota, and Craig Yencho
11:00 Development of an IPM Program for the Sweet Potato Weevil, *Cylas formicarius* in Puerto Rico
Martha Giraldo* and Wanda I. Almodóvar
1 Department of Agroenvironmental Sciences, University of Puerto Rico at Mayaguez Campus, Agricultural Experimental Station (AES) at Rio Piedras, San Juan, 2 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*, Katherine M. Jennings1, David W. Monks1, Michael D. Boyette2, Ramon G. Leon3, David L. Jordan1, Stephen J. Ippolito1, Colton D. Blankenship1, and FNU Chitra1
1 2721 Founders Drive, Department of Horticultural Science, North Carolina State University, Raleigh, NC 27695, 2 3100 Faucette Dr., Department of Biological and Agricultural Engineering, North Carolina State University, Raleigh, NC 27695, 3 101 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*, Isabel Werle1, Mark W. Shankle1, Stephen L. Meyers2, and Te-Ming Tseng1
1 Mississippi State University, Starkville, MS 39762, 2 University of Arkansas, Fayetteville, AR 72701, 3 Mississippi State University, Pontotoc, MS 38863, 4 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 Kaluwash*a 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*, Tanner Schwarz2, Bonny Oloka3, Ken Pecota1, Chris Heim1, Adrienne Gorny2, and G. Craig Yencho1
1 Department of Horticultural Science, North Carolina State University, Raleigh, NC 27695, 2 Department of Entomology and Plant Pathology, North Carolina State University, Raleigh, NC 27695, 3 Root Crops Program, National Agricultural Research Organization, Entebbe, Uganda

12:15 Effect of Preemergence Herbicides in Covington Sweetpotato.
Stephen Ippolito*, Katherine M. Jennings1, David W. Monks1, Sushila Chaudhari2, David L. Jordan1, 1 Department of Horticultural Science, North Carolina State University, Raleigh, NC, USA, 2 Department of Horticulture, Plant and Soil Science, Michigan State University, East Lansing, MI, USA, 3 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*1, John R. Clark1, and Kim S. Lewers2

1Plant Sciences, Department of Horticulture, University of Arkansas, Fayetteville, AR 72701, 2USDA-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® (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

<table>
<thead>
<tr>
<th>Time</th>
<th>8:00</th>
<th>9:00</th>
<th>10:00</th>
<th>11:00</th>
<th>12:00</th>
<th>1:00</th>
<th>2:00</th>
<th>3:00</th>
<th>4:00</th>
<th>5:00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td>Hotel Lobby</td>
<td>Registration</td>
<td>Napoleon B2</td>
<td>Southern Fruit Workers</td>
<td>Napoleon B3</td>
<td>National Sweet Potato Collaborators</td>
<td>Poydras</td>
<td>Horticulture Administrators</td>
<td>Executive Com.</td>
<td>Napoleon C2</td>
</tr>
<tr>
<td>Event</td>
<td>7:00 open</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Saturday, February 12

<table>
<thead>
<tr>
<th>Time</th>
<th>8:00</th>
<th>9:00</th>
<th>10:00</th>
<th>11:00</th>
<th>12:00</th>
<th>1:00</th>
<th>2:00</th>
<th>3:00</th>
<th>4:00</th>
<th>5:00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td>Napoleon Foyer</td>
<td>Registration</td>
<td>Napoleon C3</td>
<td>Judging Contest Set-Up</td>
<td>J. Benton Storey Horticulture Judging Contest</td>
<td>ACB Scoring</td>
<td>Napoleon B3</td>
<td>National Sweet Potato Collaborators</td>
<td>Napoleon A 2/3</td>
<td>Watermelon Research Group</td>
</tr>
<tr>
<td>Event</td>
<td>7:00 open</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Sunday, February 13

<table>
<thead>
<tr>
<th>Time</th>
<th>8:00</th>
<th>9:00</th>
<th>10:00</th>
<th>11:00</th>
<th>12:00</th>
<th>1:00</th>
<th>2:00</th>
<th>3:00</th>
<th>4:00</th>
<th>5:00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td>Napoleon Foyer</td>
<td>Registration</td>
<td>Napoleon Foyer</td>
<td>Poster Session Viewing</td>
<td>ACB Business Meeting</td>
<td>Business Meeting Awards Program</td>
<td>Borgne</td>
<td></td>
<td>Oakley</td>
<td>Vegetable Crops Section</td>
</tr>
<tr>
<td>Event</td>
<td>7:00 open</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7:45</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
In

ASHS Chicago