

PROGRAM



2020 Annual Meeting

January 31 - February 2, 2020

Louisville, KY

84rd Year

Southern Region

American Society for Horticultural Science

100th Year

Horticulture Section

Southern Association of Agricultural Scientists

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

In 1899, the State Commissioners of Agriculture in several southern states founded “The Cotton States Association of the Commissioners of Agriculture”, which had horticulture involved in its very beginning. This is the founding organization that evolved into the modern-day Southern Association of Agricultural Scientists (SAAS). In 1920, SAAS (which at that time was called Association of Southern Agricultural Works, ASAW) formalized the affiliation with horticulture by founding the Horticulture Section. In 1936, the American Society for Horticultural Sciences approved the Southern States Section, which is now termed the Southern Region of ASHS. In 1937, SAAS accepted the affiliation between the Southern States Section of ASHS with the Horticulture Section of SAAS. Thus, the Southern Region jointly has been a part of both ASHS (with a founding date of 1936) and SAAS (with a founding date 1920). This rich history is detailed in publications by Andy Anderson, 1982, and Paul Seal, 1999 (available at srashs.org). 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

Bodie Pennisi

CAES-Griffin Campus
University of Georgia
1109 Experiment Street
Griffin, GA 30223
Phone: 601-403-8939
bpennisi@uga.edu

President-Elect

Amy Wright

College of Agriculture
Auburn University
107 Comer Hall
Auburn, AL 36849
Phone: 334-844-3254
wrightam@auburn.edu

Secretary-Treasurer

David Wm. Reed

Dept. of Horticultural Sciences
Texas A&M University
TAMU 2133
College Station, TX 77843
Phone: 979-862-7964
dwreed@tamu.edu

Web Site srashs.org Visit It

PROGRAM

2020 ANNUAL MEETING

Southern Region

American Society for Horticultural Science

Louisville, KY
January 31 - February 2, 2020

FRIDAY

7:00 am -	6:00 pm	Registration Building Room: Omni Hotel Lobby
8:00 am -	5:00 pm	ASHS Board of Directors Building Room: Omni
8:30 am -	5:00 pm	Southern Fruit Workers Building Room: Omni Olmsted 2
10:00 am -	12:00 pm	ACB Club Share and Networking Building Room: Omni Old Louisville
12:00 pm -	5:00 pm	ACB Group Activities, Tour, and Meal Building Room: TBA
1:00 pm -	4:45 pm	Watermelon Research Group Building Room: Omni Olmsted 3
1:00 pm -	5:00 pm	Horticulture Administrators Building Room: Omni Clifton
5:00 pm -	6:00 pm	Executive Committee Meeting Building Room: Omni Clifton
5:00 pm -	until	ACB Mixer Building Room: TBA

SATURDAY

7:00 am -	6:00 pm	Registration Building Room: Second Street Prefunction
8:00 am -	10:00 pm	Poster Set Up Room Building Room: Omni Olmsted 4
8:00 am -	12:00 pm	J. Benton Storey Horticulture Judging Contest Setup Building Room: Omni Olmsted 5
8:00 am -	11:15 am	Extension and Education Section Building Room: Omni Old Louisville
8:00 am -	10:30 am	J. B. Edmond Undergraduate Student Paper Competition. Building Room: Omni Cherokee Triangle
8:30 am -	4:00 pm	Watermelon Research Group Building Room: Omni Olmsted 3
10:00 am -	12:00 pm	Posters Authors Pin Up Posters Building Room: Omni Olmsted 4
10:45 am -	3:15 pm	Norman F. Childers M.S. Student Building Room: Omni Olmsted 6
12:00 pm -	5:00 pm	Poster Session Viewing Building Room: Omni Olmsted 4
12:00 pm -	5:00 pm	J. Benton Storey Horticulture Judging Contest Building Room: Omni Olmsted 5
1:00 pm -	4:00 pm	Fruit Crops Section Building Room: Omni Old Louisville

1:00 am - 2:45 am Floriculture, Ornamentals and Turf Section
Building Room: Omni Olmsted 1

3:30 pm - 5:15 pm Warren S. Barham Ph.D. Student Paper Competition
Building Room: Omni Olmsted 6

SUNDAY

7:00 am - 10:45 am Registration
Building Room: Second Street Prefunction

8:00 am - 10:45 pm Poster Session Viewing
Building Room: Omni Olmsted 4

8:00 am - 9:30 am Vegetable Crops Section
Building Room: Omni Oak

8:00 am - 8:45 am Floriculture, Ornamentals and Turf Section
Building Room: Omni Charred

8:00 am - 10:45 am Fruit Crops Section
Building Room: Omni Barley

8:00 am - 9:00 am Postharvest & Biotechnology Section
Building Room: Omni Wheat

9:00 am - 10:45am ACB Business Meeting
Building Room: Omni Commonwealth 3

11:00 am - 12:30 pm Annual Business Meeting and Award Program
Building Room: Omni Commonwealth 3

1:00 pm - 3:00 pm Poster Session Take Down
Building Room: Omni Olmsted 4

SAAS Program

2:30 pm - 3:30 pm SAAS Board Meeting
Building Room: Omni Commonwealth 3

4:00 pm - 4:30 pm SAAS General Business Meeting
Building Room: Omni Commonwealth 3

Special Speaker

Dr. J. Scott Angle

Director of NIFA, USDA

Update on NIFA

SAAS Super Bowl Party

5:00 - until SAAS Super Bowl Party
Griff's Restaurant

REGISTRATION

Friday 7:00 am - 6 pm,
Hotel Lobby
Saturday 7:00 am - 6 pm,
Second Street Prefunction
Sunday 7:00 am – 10:45 am
Second Street Prefunction

FRIDAY, January 31, 2020

ACB Activities

Building: Omni
Room: Old Louisville
Time: 10:00 - 12:00 Club Share
12:00-5:00 Activity/Tour TBA
6:00 – Mixer TBA
Presiding: Rhiannon de la Rosa, ACB-
President
Nate Phillips, ACB Advisor

SRASHS Executive Committee

Building: Omni
Room: Clifton
Time: 5:00 - 6:30
Presiding: Leo Lombardini, Chair

ASHS Board of Directors

Building: Omni
Room: Nulu
Time: 8:00 - 5:00
Presiding: Mike Neff, Coordinator

Working Groups

Listed at end of program

SATURDAY, February 1, 2020

J. BENTON STOREY UNDERGRADUATE JUDGING CONTEST

Building: Omni
Room: Olmsted 5
Time: 8:00 - 12:00 Contest Set-Up
12:00-5:00 Judging Contest
5:00 -until Scoring contest
Presiding: Robert Eichas, ACB President-Elect
Steve Still, ACB Advisor for contest

J. B. EDMOND UNDERGRADUATE STUDENT PAPER COMPETITION

Building: Omni
Room: Cherokee Triangle
Presiding: Rhiannon de la Rosa, ACB-
President, Moderator
Bodie Pennisi, SRASHS President,
Courtesy Welcome to Undergrads
Chris Marble, 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:
marblesc@ufl.edu

Order of Presentations: roughly 15 min intervals

Assessing Variability of Nutritional Potency for Oil obtained from ‘Pawnee’ and ‘Kanza’ Pecans Grown at Various Locations in Oklahoma. Jonathan Fenhaus*¹, Niels Maness² and Lu Zhang²,
¹Department of Biology and Chemistry, University of Science and Arts of Oklahoma, Chickasha, OK 73018, ²Department of Horticulture and Landscape Architecture, Oklahoma State University, Stillwater, OK 74078. (jfen8162@usao.edu)

Comparison of Nut Growth with Heat Unit Accumulation for Pecans Planted in Different Geographical Locations in Oklahoma. Skylar Baldwin*¹, Lu Zhang², Charles Rohla³, Charles Fontainer² and Niels Maness², ¹College of Agriculture and Life Sciences, Mississippi State University, B.S. Hood Road, MS 39762, ²Department of Horticulture & Landscape Architecture, Oklahoma State University, Stillwater, OK 74078, ³Noble Research Institute, Ardmore, OK 73401. (luzhang@okstate.edu)

Exclusion of Major Insect Pests from Squash Utilizing Row Covers. DeAnthony Price*, L.K. Carrier, and L. Brandenberger, 358 Agriculture Hall, Department of Horticulture and Landscape Architecture, Oklahoma State University, Stillwater, OK 74078-6027. (dprice5@stallions.abac.edu)

Methods of Informal Assessment. Adeline Holder* and Shelley Mitchell., Department of Horticulture and Landscape Architecture, 358 Ag Hall, Oklahoma State University, Stillwater, OK 74078. (adholder14@hotmail.com)

Persistence and Water Use Rates of Selected Zoysiagrasses under Moderate Shade. Roy Stovall* and Charles Fontanier, Department of Horticulture and Landscape Architecture, 358 Ag Hall, Oklahoma State University, Stillwater, OK 74078. (charles.fontanier@okstate.edu)

The Biofiltration Ability of *Asparagus densiflorus* to Remove Sulfur Dioxide from the Indoor Atmosphere. Rhiannon A. de la Rosa^{1*} and Mary C. Savin², ¹Department of Horticulture, University of Arkansas, Fayetteville, AR 72701, ²105B Agriculture Building, Crop, Soil and Environmental Science, University of Arkansas, Fayetteville, AR 72701. (radelaro@email.uark.edu)

Tomato Cultivar Trials and Quality Analysis for Local Fresh Markets. Ty Bowman*, L.K. Carrier, and L. Brandenberger, 358 Agriculture Hall, Department of Horticulture and Landscape Architecture, Oklahoma State University, Stillwater, OK 74078-6027. (ty.bowman@langston.edu)

Using In-Vitro Screening to Find Sources of Tolerance to *Armillaria* spp. in *Prunus*. John Nisbet*, Sarah Miller, Guido Schnabel, Gregory Reighard and Ksenija Gasic, Department of Plant and Environmental Sciences, Clemson University, SC 29634-0310. (kgasic@clemson.edu)

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

Building: Omni

Room: Olmsted 6

Presiding: Amy Wright, Chair

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

Order of Presentations: roughly 15 min intervals

A Comparative Study of Single Versus Double Plastic Covers of High Tunnels on the Growth and Yield of Kale. Arjun Kafle* and Sanjun Gu, Cooperative Extension, North Carolina A&T State University, Greensboro, NC 27401. (akafle@aggies.ncat.edu)

Assessments of Cane Characteristics and Fruit Quality of Blackberries Grown on the Rotating Cross-Arm trellis and T-trellis. Erika Henderson¹,

Amanda McWhirt², Jackie Lee³, and Renee Threlfall⁴. ¹W. Maple St., Department of Horticulture, University of Arkansas, Fayetteville, AR 72701, ²2301 S. University, Department of Horticulture, University of Arkansas, Little Rock, AR 72204, ³1749 State Hwy 818, University of Arkansas Fruit Research Station, Clarksville, AR 72830, ⁴2650 N. Young Avenue, Food Science Department, University of Arkansas, Fayetteville, AR 72704

Comparison of Trunk Wraps in their Ability to Protect Kiwifruit Vines from Freeze Injury. Joshua S. Cook^{1*}, James D. Spiers¹, Elina D. Coneva¹, James R. Kessler¹, and Edgar L. Vinson², 101 Funchess Hall, Department of Horticulture, Auburn University, Auburn, AL 36849, ²Chilton Research & Extension Center, 120 County Road 756, Clanton, Alabama 35045. (jsc0068@auburn.edu)

Economic Feasibility of Creating Value-added Products from Farmers Market Surplus. Morgan R. Gramlich^{1*}, Renee T. Threlfall², and Amanda L. McWhirt³, ¹316 Plant Science, Horticulture Department, University of Arkansas, Fayetteville, AR 72701, ²2650 N. Young Avenue, Food Science Department, University of Arkansas, Fayetteville, AR 72704, ³2301 S. University, Cooperative Extension Service, University of Arkansas, Little Rock, AR 72204. (mrgramli@email.uark.edu)

Effect of Hydrogen Cyanamide on Flower Production of Golden Kiwifruit. Jacob T. Kelley^{1*}, James D. Spiers¹, James R. Kessler¹, Elina D. Coneva¹, and Edgar L. Vinson², ¹Department of Horticulture, Auburn University, Auburn, Alabama 36849, ²Chilton Research & Extension Center, 120 County Road 756, Clanton, Alabama 35045. (jtk0016@auburn.edu)

Effect of pH on cucumber growth and nutrient availability in a de-coupled aquaponic system with minimal solids removal. Caroline E. Blanchard^{1*}, Daniel E. Wells¹, Jeremy M. Pickens², and David M. Blersch³, ¹Department of Horticulture, Auburn University, Auburn, AL 36849, ²Ornamental Horticulture Research Center, Mobile, AL 36689, ³Department of Biosystems Engineering, Auburn University, Auburn, AL 36849. (ceb0116@auburn.edu)

Evaluation of Row Covers in Yield Performance of Leafy Green Vegetables in Organic Management System. Kripa Dhakal* and Dilip Nandwani, Department of Agriculture and Environmental Sciences, Tennessee State

University, Nashville, TN 37209
(dnandwan@tnstate.edu)

Factors Influencing Incidence and Severity of Bronzing Skin Disorder in Peach. John Mark Lawton*, Juan Carlos Melgar and Guido Schnabel, Department of Plant and Environmental Sciences, Clemson University, 105 Collings Street, Clemson, SC, 29634. (jlawton@clemson.edu)

Huanglongbing-associated Preharvest Fruit Drop in Sweet Orange. Sukhdeep Singh^{1*}, Tripti Vashisth¹, Christopher Vincent¹, and Fernando Alferez², ¹University of Florida, IFAS, Citrus Research and Education Center, 700 Experiment Station Road, Lake Alfred, FL 33850, ²University of Florida, IFAS, Southwest Florida Research and Education Center, 2685 FL-29, Immokalee, FL 34142. (sukhdeep Singh@ufl.edu)

Mapping the Primocane-Fruiting Locus in Blackberry (*Rubus* subgenus *Rubus*). Mitchell E. Armour^{1*}, Margaret L. Worthington¹, and Bode A. Olukolu², ¹Dept. of Horticulture, 316 Plant Science Building, University of Arkansas, Fayetteville, AR 72701, ²Dept. of Entomology & Plant Pathology, 352 Plant Biotechnology Building, University of Tennessee, Knoxville, TN 37996. (mearmour@uark.edu)

Physiological and Quality Characteristics of Arkansas-grown Hops. James O. McCleelan^{1*}, Renee T. Threlfall¹, Amanda L. McWhirt², and Jackie Lee³, ¹2650 N. Young Avenue, Food Science Department, University of Arkansas, Fayetteville, AR 72704, ²2301 S. University, Cooperative Extension Service, University of Arkansas, Little Rock, AR 72204, ³1749 State Hwy 818, Fruit Research Station, University of Arkansas, Clarksville, AR 72830. (jomccleelan@uark.edu)

Postharvest Changes of Physical and Chemical Fruit Quality Characteristics in Three Commercial Blueberry Types During Cold Storage. Rion T. Mooneyham^{1*}, Savithri U. Nambeesan², D. Scott NeSmith¹, Renée M. Allen³, Dario J. Chavez¹, and Rachel A. Itle¹, ¹Department of Horticulture, University of Georgia, ¹1109 Experiment Street Griffin, GA 30223, ²Department of Horticulture, University of Georgia, 1111 Miller Plant Science Building, Athens, GA 30602, ³University of Georgia Extension, 203 South Dixon Street, Suite 3, Alma, GA 31510. (rionmoon@uga.edu)

Results of a Two Year Study on the Performance of Table Grape Cultivar Jupiter with Cluster Thinning Treatments Under High Tunnels at

Two Locations in Arkansas. Jose Hernandez*, Virginia Beasley, Karlee Pruitt, and M. E. Garcia, Department of Horticulture, University of Arkansas, Fayetteville, AR 72701. (megarcia@uark.edu)

The Effect of Leaching Fraction-Based Irrigation on Fertilizer Longevity and Leachate Nutrient Content in a Greenhouse Environment. Claire E. Krofft^{1*}, Jeremy M. Pickens², Adam F. Newby³, Glenn B. Fain¹, and Jeff L. Sibley¹, ¹101 Funchess Hall, Department of Horticulture, Auburn University, Auburn, AL 36849, ²Ornamental Horticulture Research Center, P.O. Box 8276, Mobile, AL 36608, ³1300 Hickory Lane, Auburn, AL 36830 (cek0054@auburn.edu)

The Impact of Daughter-plant Harvest Technique and Nitrate: Ammonium Ratio on Asexual Reproduction in Day-neutral Strawberry (*Fragaria x ananassa* cv. 'Albion'). Xiaonan Shi* and Mark Hoffmann, Department of Horticultural Science, North Carolina State University, Raleigh, NC 27695. (xshi8@ncsu.edu)

Educating Scientists on Grower Needs Related to Indoor Plant Propagation. Kristin E. Gibson*, Alexa J. Lamm, and Fallys Masambuka, Department of Agricultural Leadership, Education, and Communication, University of Georgia, Athens, GA 30602. (kristin.gibson@uga.edu)

Two Year Study of Marketability Attributes of Jupiter Table Grape Grown Under High Tunnels at Two Locations in Arkansas. Virginia Beasley^{1*}, Renee Threlfall², Jose Hernandez¹, Karlee Pruitt¹, and M. E. Garcia¹, ¹316 Plant Science, Department of Horticulture, University of Arkansas, Fayetteville, AR 72701, ²2650 N. Young Ave. Food Science Department, University of Arkansas, Fayetteville, AR 2701. (megarcia@uark.edu)

Use of Plant Growth Regulators to Induce Uniform Flowering in Low-chill Peach Cultivar 'UFBest'. Bikash Adhikari^{1*}, Tripti Vashisth¹, Jeffrey G. Williamson², and Ali Sarkhosh². ¹700 Experiment Station Rd, Citrus Research and Education Center, Horticultural Sciences Department, University of Florida, Lake Alfred, FL 33850, ²Fifield Hall, 2550 Hull Rd, Horticultural Sciences Department, University of Florida, Gainesville, FL 32611 (b.adhikari@ufl.edu)

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

Building: Omni
Room: Olmsted 6
Presiding: Amy Wright, Chair
Abstracts: To publish abstract in *HortScience*, see instructions at end of program. Submit on disk at meeting or email to Chair: wrigham@auburn.edu

Order of Presentations: roughly 15 min intervals

A Comparison of Instrumental and Sensory Approaches to Evaluating Texture Profiles in Muscadine. T.M. Chizk^{1*}, Margaret L. Worthington¹, Renee T. Threlfall², ¹Department of Horticulture, 316 Plant Science Building, University of Arkansas, Fayetteville, AR, 72701, ² Food Science Building B-3, University of Arkansas, Fayetteville, AR 72701. (tmchizk@uark.edu)

Detection of the Gummy Stem Blight Pathogens in Watermelon Using Quick Field-Adapted Technologies. Jorge Reyes^{1*}, Caterina Villari², Marin Brewer³, Bhabesh Dutta³ and Cecilia McGregor¹, ¹Department of Horticulture, ²Warnell School of Forestry & Natural Resources, ³Department of Plant Pathology, University of Georgia, Athens, GA 30605 (jorgereyes155@uga.edu)

Discrete Blue and Red Narrowband Wavelengths Alter Flavor Volatile Profiles in Hydroponically Grown 'Italian Large Leaf' Basil. Hunter Hammock*, Dean Kopsell, and Carl Sams, Department of Plant Sciences, University of Tennessee, Knoxville, TN 37996. (hhammoc1@vols.utk.edu)

Effect of an Inactivated Yeast Foliar Spray on Ripening and Harvest Attributes of Chambourcin Wine Grapes. Sarah E. Mayfield* and Renee T. Threlfall, 2650 N. Young Avenue, Food Science Department, University of Arkansas, Fayetteville, AR 72704. (sem013@email.uark.edu)

Effect of Ethylene De-greening Treatment on Fruit Quality and Postharvest Storage Life of HLB-affected Mandarin Cultivars. Faisal Shahzad^{1*}, Jeffrey K. Brecht², Yu Wang¹, Fred Gmitter¹, Mark A. Ritenour³ and Tripti Vashisth¹, ¹700 Experiment Station Rd, Citrus Research and

Education Center, Lake Alfred, FL 33850, ²Horticulture Sciences Department, IFAS, Gainesville, University of Florida, FL 32611, ³Indian River Research and Education Center, Fort Pierce, University of Florida, FL 34945-3138. (amiabu@ufl.edu)

Effect of Honey as a Rooting Adjuvant on Rooting of Rosa 'Red Cascade' Stem Cuttings. Anthony T. Bowden^{1*}, Patricia R. Knight¹, Christine Coker¹, Sean Broderick², Eugene K. Blythe³, Hamidou Sakhanokho⁴, and Ebrahiem Babiker⁴, ¹Coastal Research and Extension Center, South Mississippi Branch Experiment Station, P.O. Box 193, Poplarville, MS 39470, ²Truck Crops Branch Experiment Station, 2024 Experiment Station Rd., Crystal Springs, MS 39059, ³College of Agriculture, Auburn University, Auburn, AL 36849, ⁴USDA-ARS Southern Horticultural Lab., P.O. Box 287, Poplarville, MS 39470. (ab1001@msstate.edu)

Effect of sand-injection and air-injection cultivation on creeping bentgrass. Naba Amgain* and Charles Fontanier, Department of Horticulture and Landscape Architecture, 358 Ag Hall, Oklahoma State University, Stillwater, OK 74078. (Naba@okstate.edu)

Effect of Total Immersion Auxin Application Method on Florida Azalea Survivability and Root Response. Jenny B. Ryals^{1*}, Patricia R. Knight¹, Daryl R. Chastain², Lloyd E. Ryals III³, Christine E. H. Coker⁴, Gary R. Bachman⁴, Jim DelPrince⁴, Patricia R. Drackett⁵, and Anthony T. Bowden¹. ¹Coastal Research and Extension Center, Mississippi State University, Poplarville, MS 39470, ²Delta Research and Extension Center, Mississippi State University, Stoneville, MS 38776, ³Mississippi Department of Agriculture and Commerce, Bureau of Plant Industry, Mississippi State, MS 39762, ⁴Coastal Research and Extension Center, Mississippi State University, Biloxi, MS 39532, ⁵The Crosby Arboretum, Mississippi State University, Picayune, MS 39466 (j.ryals@msstate.edu)

Efficacy of Bagging as an Alternative Insect and Disease Management Tool for Peach (*Prunus persica* L.) in Florida. David Campbell^{1*}, Jennifer Gillett-Kaufman², Ali Sarkhosh¹, Jeffrey Brecht¹, and Danielle Treadwell¹, ¹Department of Horticultural Sciences, University of Florida,

Gainesville, FL 32611, ²Department of Entomology, University of Florida, Gainesville, FL 32611. (campbell@ufl.edu)

Evaluation of Humic Substances on Yield Performance and Quality of Cantaloupe (*Cucumis melo* L.) in Organic Management System. ZaDarreyal Wiggins* and Dilip Nandwani, Department of Agriculture and Environmental Sciences, Tennessee State University, Nashville, TN 37209 (dnandwan@tnstate.edu)

Evaluation of Humic Substances on Yield Performance of Watermelon (*Citrullus lunatus* [Thunb.] Matsum and Nakai) in Organic Production System. Onyekachukwu Akaeze* and Dilip Nandwani, Department of Agriculture and Environmental Sciences, Tennessee State University, Nashville, TN 37209 (dnandwan@tnstate.edu)

Feasibility of Genomic Selection for Brown Rot Tolerance in Peach. Wanfang Fu*, Cassia da Silva Linge, Ralph Burrell and Ksenija Gasic, Department of Plant & Environmental Sciences, Clemson University, 105 Collings St., Clemson, SC 29634. (wfu@clemson.edu)

Influence of Fertilizer Placement on Growth of Eclipta (*Eclipta prostrata*) and its Competition Effect on Ligustrum (*Ligustrum lucidum*) and Boxwood (*Buxus microphylla*). Yuvraj Khamare*, S. Christopher Marble and Annette Chandler., University of Florida/IFAS, Mid-Florida Research and Education Center, Apopka, FL, 32703. (ykhamare@ufl.edu)

Water Use Pattern and Intrinsic Antioxidant Machinery Confer Tetraploid Volkamer Lemon Tolerance to Various Water-Deficit Scenarios. Muhammad Fasih Khalid^{1,2*}, Sajjad Hussain¹, Muhammad Akbar Anjum¹, Christopher Vincent², Shakeel Ahmad¹, Muhammad Arif Ali¹ and Raphael Morillon³, ¹Faculty of Agricultural Sciences and Technology, Bahauddin Zakariya University, 60800 Multan, Pakistan. ²Citrus Research and Education Center, University of Florida, 33850 Lake Alfred, FL, United States. ³Equipe “Structure Evolutive des Agrumes, Polyploidie et Amelioration Genetique”, SEAPAG-UM AGAP-Department BIOS-CIRAD Station de Roujol 97170 Petit Bourg/Guadeloupe, France. (civince@ufl.edu)

Genetic Architecture of Salt and Drought Tolerance in Cowpea. Authors: Waltram Ravelombola*, Ainong Shi, and Haizheng Xiong, 316 Plant Science, Department of Horticulture, University of Arkansas, Fayetteville, AR 72701 (wravelom@uark.edu)

POSTERS

Building: Omni

Room: Olmsted 4

Presiding: Yan Chen, Chair

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

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

Mount Posters: Saturday, 10:00-noon

Poster Viewing

Saturday noon to 5:00 pm

Sunday 8:00-10:45 am

Authors at their poster:

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

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

Take-down: Sunday, 1:00–3:00 pm

Student Poster Competition

UG = Indicates undergraduate poster titles

G = Indicates graduate poster titles

Floriculture, Ornamentals and Turf

- 1G) **Honeybee (*Apis mellifera* L.) Visits to Crepe Myrtle (*Lagerstroemia indica* L.) Vary According to Proximity to Pollinator-Friendly Plants.** Canaan Sutton*, Taryn Bazhaw, Martin Mendieta, Michaela Bledsoe, and Derald A. Harp, College of Agricultural Sciences and Natural Resources, Texas A&M University-Commerce, Commerce, TX 75429. (Derald.Harp@tamuc.edu)
- 2) **Systematic Strategies to Manage Crapemyrtle Bark Scale (*Acanthococcus lagerstroemiae*).** Runshi Xie¹, Bin Wu¹, Michael E Merchant², Erfan Vafaie², Yan Chen³, David Held⁴, Gary W. Knox⁵, Yu Zhang⁶, Jim Robbins⁷, Derald Harp⁸, and Mengmeng Gu^{2*}, ¹Department of Horticultural Sciences, Texas A&M University (TAMU), ²Texas A&M AgriLife Extension, ³LSU AgCenter Hammond Research Station, ⁴Department of Entomology and Plant Pathology, Auburn University, ⁵University of Florida IFAS,

- ⁶Department of Agricultural Economics, TAMU ⁷University of Arkansas-CES, ⁸Department of Agricultural Sciences, TAMU-Commerce. (mgu@tamu.edu)
- 3UG) **Honeybee (*Apis mellifera* L.) Visits to Crepe Myrtle (*Lagerstroemia indica* L.) Vary According to Cultivar and Month.** Taryn Bazhaw*, Canaan Sutton, Martin Mendieta, Michaela Bledsoe, and Derald A. Harp, College of Agricultural Sciences and Natural Resources, Texas A&M University-Commerce, Commerce, TX 75429. (Derald.Harp@tamuc.edu)
- 4G) **Mechanical Control of Crepe Myrtle Bark Scale (*Acanthococcus lagerstromiae* Kuwana).** Michaela Bledsoe*, Canaan Sutton, Taryn Bazhaw, Martin Mendieta, and Derald A. Harp, College of Agricultural Sciences and Natural Resources, Texas A&M University-Commerce, Commerce, TX 75429. (Derald.Harp@tamuc.edu)
- 5) **Increasing Sustainability of Residential Areas Using Rain Gardens to Improve Pollutant Capture, Biodiversity and Ecosystem Resilience.** Amy Wright¹*, Jennifer Morash¹, and Charlene LeBleu². ¹Department of Horticulture, ²Program of Landscape Architecture, Auburn University, Auburn, AL 36849. (wrigham@auburn.edu)
- 6UG) **A Comparison of Pan Traps to Insect Transects for Pollinator Monitoring in Crepe Myrtle (*Lagerstroemia indica* L.).** Martin Mendieta*, Michaela Bledsoe, Canaan Sutton, Taryn Bazhaw, and Derald A. Harp, College of Agricultural Sciences and Natural Resources, Texas A&M University-Commerce, Commerce, TX 75429. (Derald.Harp@tamuc.edu)
- 7G) **Pretreatment Techniques for Seed Propagation in *Ratibida columnifera* (Nutt.) Wooten & Standl.** Kaitlin Hopkins¹*, Michael A. Arnold¹, Charles R. Hall¹, H. Brent Pemberton², and Marco A. Palma³. ¹Department of Horticultural Sciences, Texas A & M University, College Station, TX 77843-2133, ²Texas A&M AgriLife Research and Extension Center at Overton, 710 N FM 3053, P.O. Box 200, Overton, TX 75684, ³Department of Agricultural Economics, Texas A&M University, 2124 TAMU, College Station, TX 77843-2124. (hopkinska@tamu.edu)
- 8) **An Overview of the Mississippi State University Extension Farmer Florist Series.** Christine Coker¹*, James DelPrince¹, Benedict Posadas¹, Eric Stafne², Patricia Knight², and Christian Stephenson³. ¹MSU Coastal Research and Extension Center, 1815 Popp's Ferry Road, Biloxi, MS 39532. ²South Mississippi Branch Station, 810 Hwy. 26W, Poplarville, MS 39470, ³MSU Extension-Hancock County, 856 Ste. B, Hwy 90, Bay St. Louis, MS 39520. (christine.coker@msstate.edu)
- 9UG) **Floral Bud and Fruit Development in *Hibiscus sabdariffa*.** Imhotep Charles* and T.W. Zimmerman, University of the Virgin Islands Agricultural Experiment Station, RR#1 Box 10,000, Kingshill, VI 00850. (charlesimhotepctec@yahoo.com)
- 10G) **Effect of Sample Collection Methods on Anthocyanins in Crape Myrtle Flower Petals.** Jenny B. Ryals¹*, Patricia R. Knight¹, Ebrahiem Babiker², Christine E. H. Coker³, Gary R. Bachman³, Daryl R. Chastain⁴, Guihong Bi⁵, Ben Posadas³, and Lavonne Stringer². ¹Coastal Research and Extension Center, Mississippi State University, Poplarville, MS 39470, ²Thad Cochran Southern Horticultural Lab, USDA-ARS, Poplarville, MS 39470, ³Coastal Research and Extension Center, Mississippi State University, Biloxi, MS 39532, ⁴Delta Research and Extension Center, Mississippi State University, Stoneville, MS 38776, ⁵Department of Plant and Soil Sciences, Mississippi State University, Mississippi State, MS 39762. (j.ryals@msstate.edu)
- 11) **Consumer Preferences and Willingness to Pay for Poinsettia Varieties (*Euphorbia pulcherrima* L.).** Caitlin McLeod* and Christine Coker, Patricia Knight, James DelPrince, Gary Bachman, Benedict Posadas and Scott Langlois, Coastal Research and Extension Center Mississippi State University, MS 39532. (cm1410@msstate.edu)
- 12UG) **Asexual propagation of *Bucida buceras*: Air layering versus Groundlayering.** Eliam Sanchez Palaez*, M. Morgan and T.W. Zimmerman, University of the Virgin Islands Agricultural Experiment Station, RR#1 Box 10,000, Kingshill, VI 00850. (elansape00@hotmail.com)

- 13G) Effect of Pre-emergence Herbicides and Mulches on Rooting of Nursery Cuttings and Weed Control.** Isha Poudel* and Anthony Witcher, Department of Agricultural and Environmental Sciences, Otis L. Floyd Nursery Research Center, Tennessee State University, McMinnville, TN, 37110. (ipoudel@my.tnstate.edu)
- 14) Identification and Management of *Praxelis clematidea*; A New and Troublesome Weed in Central Florida.** S. Chris Marble*, Yuvraj Khamare, and Annette Chandler, Department of Environmental Horticulture, University of Florida, Mid-Florida Research and Education Center, 2725 S. Binion Rd., Apopka, FL 32703. (marblesc@ufl.edu)
- 15UG) Compost Substrate Amendments for Spicebushes.** Allie Maternowski, Winston Dunwell, Iin Handayani, Dava Hayden, Dwight Wolfe, and Virginia Travis. School of Agriculture, Murray State University, Murray, KY. (amaternowski1@murraystate.edu)
- 16G) Light response curves for creeping bentgrass under temporal shade.** Naba Amgain* and Charles Fontanier., Department of Horticulture and Landscape Architecture, 358 Ag Hall, Oklahoma State University, Stillwater, OK 74078. (Naba@okstate.edu)
- 17) Multi-year Monitoring of Crapemyrtle Bark Scale Crawler Population across Louisiana.** Yan Chen^{1*}, Rodrigo Diaz², Mengmeng Gu³, Michael E Merchant³, Erfan Vafaie³, ¹Louisiana State University AgCenter Hammond Research Station, 21549 Old Covington Hwy., Hammond LA, ²Louisiana State University AgCenter Department of Entomology, Life Science Bldg. Baton Rouge, LA, ³Texas A&M AgriLife Extension. (yachen@agcenter.lsu.edu)
- 18UG) Influence of Cutting Type and Stem Position on Spring Cuttings of Pascagoula™ Crape Myrtle.** J. Skylar Baldwin^{1*}, Patricia R. Knight², Scott L. Langlois², Eugene K. Blythe², Jenny B. Ryals², Christine E. H. Coker³, Gary R. Bachman³, and Jim DelPrince³. ¹Department of Biochemistry, Molecular Biology, Entomology, and Plant Pathology, Mississippi State University, Mississippi State, MS 39762, ²Coastal Research and Extension Center, Mississippi State University, Poplarville, MS 39470, ³Coastal Research and Extension Center, Mississippi State University, Biloxi, MS 39532 (jsb702@msstate.edu)
- 19UG) Surface Temperature Measurements in An Urban Agricultural System as A Crop Grows.** K'Ori Terry*, Dr. Leigh Whittinghill, and Dr. Gebremedhin Maheteme. College of agriculture, Communities and the Environment, Kentucky State University, Frankfort, 40601. (kori.terry@kysu.edu)
- Fruit Crops**
- 20G) Using Paper Bags for Growing Peaches in Backyard Gardens: a New Horticultural Practice in the United States.** Ann Kule*, Juan Carlos Melgar, Department of Plant and Environmental Sciences, Clemson University, Clemson, SC 29634. (akule@clemson.edu)
- 21G) Biological and Biochemical Physiognomies of Pineapple Genotypes Grown under the Greenhouse Conditions in the Southern United States.** ASM Harun Sorker*, Zelalul Adam and Shahidul Islam¹, ¹Department of Agriculture /Agricultural Regulations, University of Arkansas at Pine bluff, 153 Woodard Hall, Pine Bluff, AR 71601. (islams@uapb.edu)
- 22) Yield Performance of Three Fall Fruiting Blackberry Selections Grown Organically in Kentucky.** Jeremiah D. Lowe*, Kirk W. Pomper, and Sheri B. Crabtree. College of Agriculture, Communities, and the Environment, Kentucky State University, Cooperative Extension Building, Frankfort KY 40601-2355. (Jeremy.lowe@kysu.edu)
- 23G) Effects of NAA, AVG, and 1-MCP on Preharvest Fruit Drop, Fruit Maturity, and Quality of 'AU Golden Sunshine' Kiwifruit.** Jacob T. Kelley^{1*}, James D. Spiers¹, James R. Kessler¹, Elina D. Coneva¹, and Edgar L. Vinson², ¹Department of Horticulture, Auburn University, Auburn, Alabama 36849, ²Chilton Research & Extension Center, 120 County Road 756, Clanton, Alabama 35045. (jtk0016@auburn.edu)
- 24G) Leaf and flower morphology of**

- Ecuadorian *P. serotina* subsp. *Capuli*.** Sakshi Pathania^{1*}, Juan C. Carrasco², Carlos R. Chavez², Luis Fiallos³, and Dario J. Chavez¹, ¹University of Georgia, Department of Horticulture, Griffin, GA, USA; ²Faculty of Natural Resources, Escuela Superior Politécnica de Chimborazo, Riobamba, Ecuador; ³Faculty of Livestock Sciences, Escuela Superior Politécnica de Chimborazo, Riobamba, Ecuador. (sp28191@uga.edu)
- 25) Precocious Fruit Production in 2 Year Old Bark Inlay Grafted Pawpaw Trees.** Sheri B. Crabtree^{1*}, Jeremiah D. Lowe¹, Kirk W. Pomper¹, and R. Neal Peterson², ¹College of Agriculture, Communities, and the Environment, Kentucky State University, Cooperative Extension Building, Frankfort KY 40601, ²Peterson Pawpaws, Harpers Ferry, WV 25425. (sheri.crabtree@kysu.edu)
- 26G) Rapid Digital Imaging Approach for Screening Red Drupelet Reversion in Blackberry.** T.M. Chizk*, Margaret L. Worthington, and John R. Clark, Department of Horticulture, 316 Plant Science Building, University of Arkansas, Fayetteville, AR, 72701. (tmchizk@uark.edu)
- 27G) Apple Fruit Size Is Enhanced with Increasing 6-BA Application Number.** Kritika Tonapi^{1*}, Anish Malladi¹ and Tom Kon², ¹1111 Miller Plant Sciences, Department of Horticulture, University of Georgia, Athens, GA 30602, ²Department of Horticultural Sciences, North Carolina State University, Mountain Horticultural Crops and Research and Extension Center, 455 Research Drive, Mills River, NC, 28759. (kvt71052@uga.edu)
- 28G) The Backbone of Fruit: Cell Wall Polysaccharides in Grafted and Non-grafted ‘Liberty’ Watermelon at Varying Levels of Hollow Heart.** Marlee A. Trandel^{1*}, Penelope Perkins-Veazie¹, Suzanne Johanningsmeier², Jonathan Schultheis³ and Chris Gunter³, ¹North Carolina State University, Department of Horticultural Sciences, 600 Laureate Way, Plants for Human Health Institute, Kannapolis NC 28081, ²North Carolina State University, Department of Food, Bioprocessing and Nutrition Sciences, 400 Dan Allen Drive, Schaub Hall, Raleigh NC 27606, ³North Carolina State University, Department of Horticultural Sciences, 2721 Founders Drive, Kilgore Hall, Raleigh NC 27606. (matrande@ncsu.edu)
- 29G) Effect of Biochar on Root Morphology and Nutrient Content in Muscadine Grape (*Vitis rotundifolia* L.).** Yuru Chang* and Ali Sarkhosh, Horticultural Sciences Department, University of Florida, Gainesville, FL 32611-0690. (changyuru@ufl.edu)
- 30G) Physiological Responses of Six Prunus Rootstocks Submitted to Waterlogging Stress.** Trequan McGee^{1*}, Ali Sarkhosh¹, Jose Chaparro¹, and Tom Beckman²; ¹Horticultural Sciences Department, University of Florida, Gainesville, FL 32611. ²USD-ARS, Fruit and Tree Nut Research, Byron, GA (trequanmcgee@ufl.edu)
- 31G) Effect of Rootstock Cultivar on Consumer Quality Attributes of ‘Aztec Fuji’ Apple.** Dylan Teel*, Elina Coneva, Floyd M. Woods, and Nylan. Holmes. Department of Horticulture, Auburn University, Auburn, AL 36849-5408. (edc001@auburn.edu)
- Vegetable Crops**
- 32G) Selection of Stable Bush-Type Southern Appalachian Heirloom Snap Beans.** Mary A. Mahan* and Brian M. Leckie, School of Agriculture, Tennessee Tech University, Cookeville, TN 38505. (bleckie@tntech.edu)
- 33UG) Insect Populations in Screened and Unscreened Summer Squash (*Cucurbita pepo*).** DeAnthony Price*, L.K. Carrier, and L. Brandenberger, 358 Agriculture Hall, Department of Horticulture and Landscape Architecture, Oklahoma State University, Stillwater, OK 74078-6027. (dprice5@stallions.abac.edu)
- 34G) Small Farm Evaluation of Bush-Type Southern Appalachian Heirloom Snap Beans.** Erik Koehler* and Brian M. Leckie, School of Agriculture, Tennessee Tech University, Cookeville, TN 38505. (bleckie@tntech.edu)
- 35UG) Quality Evaluations of Fresh Market Tomatoes (*Lycopersicon esculentum* L.).**

- Ty Bowman*, L.K. Carrier, and L. Brandenberger, 358 Agriculture Hall, Department of Horticulture and Landscape Architecture, Oklahoma State University, Stillwater, OK 74078-6027. (ty.bowman@langston.edu)
- 36) **Compost Type and Rate Effects on Plant Yield and Mineral Nutrients in Bell Pepper (*Capsicum annum* L.).** Juan C. Díaz-Pérez*. Department of Horticulture, Tifton Campus, University of Georgia, Tifton, GA 31793 (jcdiaz@uga.edu)
- 37) **Comparative Study of Ginger Mineral Nutrient Contents.** Guochen Yang*, Julia Robinson, Sanjun Gu, Zhongge (Cindy) Lu, William Lashley, and Bryce Holms, College of Agriculture and Environmental Sciences, North Carolina A&T State University, Greensboro, NC 27411. (yangg@ncat.edu)
- 38G) **Differential Lead (Pb) Accumulation in Cold Season Vegetables and Raised Garden Bed Barrier Evaluations for Safer Gardening.** Celine Richard*, Kiki Fontenot, Edward Bush, Taylor Bryant, and Heather Kirk-Ballard, School of Plant, Environmental, and Soil Sciences, Louisiana State University Agricultural Center, Baton Rouge, LA 70803. (crich99@lsu.edu)
- 39G) **Utilization of KASP Assays for Marker Assisted Selection of Key Watermelon Traits.** Samuel Manthi*¹, Geunjoon Lee² and Cecilia McGregor¹, ¹Department of Horticulture, University of Georgia, 1111 Plant Sciences Building, Athens, GA 30602, USA, ²Department of Horticulture, Chungnam National University, Daejeon 34134, Republic of Korea. (Samuel.Josiah@uga.edu)
- 40) **Characterization of Southern Appalachian Heirloom Snap Beans using Genotyping by Sequencing.** Brian M. Leckie* and Michael Best, School of Agriculture, Tennessee Tech University, Cookeville, TN 38505. (bleckie@tntech.edu)
- 41UG) **Influence of Deflowering on Jicama Production.** Milan Philbert* and T.W. Zimmerman, University of the Virgin Islands Agricultural Experiment Station, RR#1 Box 10,000, Kingshill, VI 00850. (milkphilbert@gmail.com)
- 42G) **Warm and Cool LED Supplements Impact Key Flavor Volatiles in Hydroponically Grown 'Purple Petra' Basil.** Hunter Hammock*, Dean Kopsell, and Carl Sams, Department of Plant Sciences, University of Tennessee, Knoxville, TN 37996. (hhammoc1@vols.utk.edu)
- 43G) **Bulked Segregant Analysis Identification of Four Gummy Stem Blight Resistance Loci in Wild Watermelon Relatives.** Lincoln Adams* and Cecilia McGregor. 1401 Miller Plant Sciences, Institute of Plant Breeding, Genetics, and Genomics, University of Georgia, Athens, Georgia 30605. (Lincoln.Adams@uga.edu)
- 44UG) **The Influence of Single and Double-Rows on Sweetpotato Production.** Kervin Mathurin* and T.W. Zimmerman, University of the Virgin Islands Agricultural Experiment Station, RR#1 Box 10,000, Kingshill, VI 00850. (kervinmathurin@gmail.com)
- 45) **Effect of Slow Release Fertilizer on Mineral Nutrition and Fruit Yield in Bell Pepper (*Capsicum annum* L.).** Juan C. Díaz-Pérez*. Department of Horticulture, Tifton Campus, University of Georgia, Tifton, GA 31793 (jcdiaz@uga.edu)
- 46G) **Growth and Yield of Pak Choi in High Tunnels of Single- and Double-Layers of Plastic Covers.** Arjun Kafle* and Sanjun Gu. Cooperative Extension, North Carolina A&T State University, Greensboro, NC 27401. (akafle@aggies.ncat.edu)
- 47UG) **Squash Bug Ovipositional Preference within *Cucurbita pepo*.** Grayson DeLay*, Chelsea Sanders, and Brian M. Leckie, School of Agriculture, Tennessee Tech University, Cookeville, TN 38505. (bleckie@tntech.edu)
- 48G) **Impact of a Shaded High Tunnel Effects for Organically-Grown Summer Lettuce in Georgia.** Savannah Laur* and T. Coolong., Department of Horticulture, University of Georgia, Athens, GA 30602 (sal98292@uga.edu)
- 49UG) **Ovipositional Preference of Silverleaf Whitefly on Benchmark Acylsugar Tomato Breeding Lines.** Brianah Castleberry¹*, Erik Koehler¹, Martha A. Mutschler², and Brian M. Leckie¹, ¹School

of Agriculture, Tennessee Tech University, Cookeville, TN 38505, ² School of Integrated Plant Science, Plant Breeding and Genetics Section, Cornell University, Ithaca, NY 14853. (bleckie@tntech.edu)

- 50) **“Every Piece a Work of Art”: Ella Grant Campbell, Florist.** James M. DelPrince, Mississippi State University Coastal Research and Extension Center, 1815 Popps Ferry Rd., Biloxi, MS 39532. (JDelPrince@pss.msstate.edu)

Post-Harvest and Biotechnology

- 51G) **Role of Mineral Nutrition in Citrus Fruit Quality and Postharvest Storage Life of HLB-affected Mandarin cv. ‘LB8-9’ (Sugar Belle®).** Faisal Shahzad^{1*}, Jeffrey K. Brecht², Yu Wang¹, Fred Gmitter¹, Mark A. Ritenour³ and Tripti Vashisth¹, ¹Citrus Research and Education Center, 700 Experiment Station Rd, Lake Alfred, FL 33850, ²Horticulture Sciences Department, IFAS, Gainesville, University of Florida, FL 32611, ³Indian River Research and Education Center, Fort Pierce, University of Florida, FL 34945. (amiabu@ufl.edu)
- 52G) **Effects of Cooling and Postharvest Storage Methods on the Quality of Broccoli (*Brassica oleracea* var. *Italica*).** Sarah E. Parker^{1*}, Jennifer R. Wheeler¹, Curtis R. Luckett², Dennis E. Deyton¹, Carl E. Sams¹, ¹Department of Plant Science, Institute of Agriculture, University of Tennessee, Knoxville, TN 37996, ²Department of Food Science, Institute of Agriculture, University of Tennessee, Knoxville, TN 37996. (sparke53@utk.edu)
- 53G) **Working to Better Understand Postharvest Fresh Keeping Quality in Blueberry through Differential Gene Expression Analyses.** Rion T. Mooneyham^{1*}, Yi-Wen Wang², Savithri U. Nambeesan², Dario J. Chavez¹, and Rachel A. Itle¹, ¹Department of Horticulture, University of Georgia, 1109 Experiment Street Griffin, GA 30223, ²Department of Horticulture, University of Georgia, 1111 Miller Plant Science Building, Athens, GA 30602. (rionmoon@uga.edu)
- 54G) **Phytochemical Profile in Finger Lime (*Citrus australasica*).** Bikash Adhikari^{1*}, Manjul Dutt¹ Tripti Vashisth¹, ¹700

Experiment Station Rd, Citrus Research and Education Center, Horticultural Sciences Department, University of Florida, Lake Alfred, FL 33850, (b.adhikari@ufl.edu)

Cross-Commodity

- 55G) **Evaluation of Saffron (*Crocus sativa* L.) in Four Growing Systems.** Pradip Poudel*, Hideka Kobayashi, Shawn Lucas and Leigh Whittinghill, College of agriculture, Communities and the Environment, Kentucky State University, Frankfort, 40601. (Pradip.Poudel@kysu.edu)
- 56) **Impact of Winemaking Techniques on Characteristics of Enchantment Wine.** Sarah E. Mayfield^{1*}, Renee T. Threlfall¹, and John R. Clark², ¹2650 N. Young Avenue, Food Science Department, University of Arkansas, Fayetteville, AR 72704, ²316 Plant Science, Horticulture Department, University of Arkansas, Fayetteville, AR 72701. (sem013@email.uark.edu)
- 57UG) **Comparison of Hydroponic American Ginseng (*Panax quinquefolius*) in Response to the Absence of Specific Nutrients.** Elizabeth Clippard^{1*}, Nate Phillips², Song Cui², Robert Eichas², and Ying Gao², ¹Biology Department, ²School of Agriculture, Middle Tennessee State University, Murfreesboro TN, 37132. (elizabeth.clippard@gmail.com)
- 58G) **Effect of Cooking Methods on the Bioactive Compounds and Physiological Functions of Sweetpotato Leaves (*Ipomoea batatas* L Lam).** Mosammat Briti Rabbani*, Zelalul Adam and Shahidul Islam, Department of Agriculture /Agricultural Regulations, University of Arkansas at Pine Bluff, 153 Woodard Hall, Pine Bluff, AR 71601. (islams@uapb.edu)
- 59) **Anticipating Farmers Market Surplus for Creating Value-added Products.** Morgan R. Gramlich^{1*}, Renee T. Threlfall², and Amanda L. McWhirt³, ¹316 Plant Science, Department of Horticulture, University of Arkansas, Fayetteville, AR 72701, ²2650 N. Young Avenue, Food Science Department, University of Arkansas, Fayetteville, AR 72704, ³2301 S. University, Cooperative Extension Service, University of Arkansas, Little Rock, AR 72204. (mrgramli@email.uark.edu)

60UG) The Distinction of Antioxidant Capacity of Colored Sweetpotatoes (*Ipomoea batatas* L.) and Its Tops in Relation to Polyphenolic Contents. Jameka Hartson*, Zelalul Adam and Shahidul Islam, Department of Agriculture /Agricultural Regulations, University of Arkansas at Pine Bluff, 153 Woodard Hall, Pine Bluff, AR 71601. (islams@uapb.edu)

SECTION TITLES

EXTENSION AND EDUCATION

Building: Omni

Room: Old Louisville

Presiding: Mike Schnelle, Chair Extension
Richard Harkess, Chair Education

Abstracts: To publish abstract in *HortScience*, see instructions at end of program. Submit on disk at meeting or email to Chair: mike.schnelle@okstate.edu, or richard.harkess@msstate.edu

Education

8:00 The Utilization of User Fees to Manage Greenhouses and Growth Chambers at Public and Land Grant Universities. Kennedy Mayfield-Smith*, Alexa J. Lamm, Robert Stougaard, Department of Agricultural Leadership, Education, and Communication, University of Georgia, Athens, GA 30602 (Kennedy.Mayfieldsmith@uga.edu)

Extension

8:15 Using Motivations and Benefits to Calculate Match for Extension Master Gardener Volunteers. Sheri Dorn^{1*}, Svoboda Pennisi¹, Ellen Bauske², and Uttam Bhattarai³, ¹Department of Horticulture, University of Georgia, Griffin, GA 30224, ²Department of Plant Pathology, University of Georgia, Griffin, GA 30224, ³Experimental Statistics, University of Georgia, Griffin, GA 30224. (sdorn@uga.edu)

8:30 Horticulture CSI: The Latest Clues in the Search for the Long Beach Red Radish. Gary R. Bachman^{1*}, Christine E.H. Coker¹ and Patricia R. Knight², ¹Coastal Research and Extension Center, Mississippi State University, 1815 Popp's Ferry Road, Biloxi,

MS 38532, ²Coastal Horticulture Research, South Mississippi Branch Station, Poplarville, MS 39470. (gary.bachman@msstate.edu)

8:45 Indoor Plant Growers' Preferred Sources of Agricultural Information. Fally Masambuka-Kanchewa*, Kristin E. Gibson and Alexa J. Lamm, Department of Agricultural Leadership and Communication, University of Georgia, Four Towers, Suite 209, 405 College Station Road, Athens, GA 30602. (fallys.masambuka@uga.edu)

9:00 Industrial Hemp Pilot Program at A&T Provides Guidance to Small Farmers in North Carolina. Sanjun Gu^{1*}, Guochen Yang² and Valerie Giddings³, ¹Cooperative Extension, ²Department of Natural Resources and Environmental Design, ³Department of Family and Consumer Sciences, North Carolina A&T State University, Greensboro, NC 27401. (sgu@ncat.edu)

9:15 Break

9:30 Modernizing Extension Publications: A Case Study of U.S. Landscape Design Resources. Cheryl R. Boyer*, Jianqiao Luan, and Gregory Davis. Department of Horticulture and Natural Resources, Manhattan, KS 66506. (crboyer@ksu.edu)

9:45 Dealing a Winning Strategy: An Integrated Pest Management Card Deck for Extension Learning. Cheryl R. Boyer^{1*}, Frannie L. Miller², and Brooke M. Garcia², ¹Department of Horticulture and Natural Resources, Kansas State University, Manhattan, KS 66506, ²Department of Entomology, Kansas State University, Manhattan, KS 66506. (crboyer@ksu.edu)

10:00 Implementation of an LSU AgCenter K-12th School Garden Leadership Workshop to Assess and Teach Basic Horticulture Skills. Celine Richard^{1,2*}, Kiki Fontenot², Edward Bush^{1,2}, Pam Blanchard¹ and Carl Motsenbocker^{1,2}, ¹Louisiana State University, Baton Rouge, LA 70803; ²Louisiana State University Agricultural Center, Baton Rouge, LA 70803. (crich99@lsu.edu)

10:15 Trail Users' Perceptions of Plant Species as a Tool for Future Design in Restoring Degraded Landscapes. Rachel Bechtold*, Catherine W. Shoulders, Jennie Popp, Lisa Wood, Elena Garcia, and Donald M.

Johnson, Department of Agricultural Education, Communications and Technology, University of Arkansas, Fayetteville, AR 72701. (cshoulde@uark.edu)

10:30 Break

10:45 The Effectiveness of an Online Webinar Platform for Training Cooperative Extension Agents in Blueberry Production. Amanda McWhirt^{1*}, Bill Cline², Ryan Neal³, Lizzy Herrera¹ and Mary Poling⁴. ¹2301 S. University, Department of Horticulture, University of Arkansas Cooperative Extension Service, Little Rock, AR 72204, ²3800 Castle Hayne Rd, Department of Entomology and Plant Pathology, Horticultural Crops Research Station, North Carolina State University, Castle Hayne, NC 28429, ³1204 SW 14th St. Suite 2, Benton County University of Arkansas Cooperative Extension Service, Bentonville, AR 72712, ⁴2301 S. University, Department of Information Technology, University of Arkansas Cooperative Extension Service, Little Rock, AR 72204. (amcwhirt@uaex.edu)

11:00 Promoting Tall Ridged Beds to Improve Plant Stand, Growth and Production of Vegetable Crops in Areas Prone to Flooding Conditions. Ramón A. Arancibia. University of Missouri Extension, WC Region, Butler, MO 64730. (Raa522@missouri.edu)

11:15 Effectiveness of Canvas Learning Management Software as a Tool for Master Gardener Volunteer Training: Use as a Course Supplement and as an Alternative to In-Person Classes. Wayne Hobbs, University of Florida/IFAS Extension Clay County, Green Cove Springs, FL 32043. (whhobbs@ufl.edu)

FLORICULTURE, ORNAMENALS AND TURF

Building: Omni

Room: Olmsted 1

Presiding: Jeb Fields, Chair

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

Chair: Jeb Fields,
jfields@agcenter.lsu.edu

1:00 Short-term Effects of Basal Stem Glufosinate Applications to Nursery Trees. Anthony L. Witcher*, Department of Agricultural and Environmental Sciences, Otis L. Floyd Nursery Research Center, Tennessee State University, 472 Cadillac Ln., McMinnville, TN 37110. (awitcher@tnstate.edu)

1:15 From Pot to Reservoir: Tracking Nitrogen Movement at a SC Nursery. Sarah A. White^{1*}, John C. Majsztrik¹, William H.J. Strosnider², Lauren M. Garcia Chance³, Natasha L. Bell⁴, and Daniel R. Hitchcock⁵, ¹E-143 Poole Agricultural Center, Department of Plant and Environmental Sciences, Clemson University, Clemson, SC 29634, ²2306 Crabhall Rd, Belle W. Baruch Institute for Marine and Coastal Sciences, University of South Carolina, Georgetown, SC 29442, ³East 5th Street, Department of Engineering, East Carolina University, Greenville, NC 27858, ⁴177 Hobcaw Rd. Department of Agricultural Sciences, Clemson University, Georgetown, SC 29442 (swhite4@clemson.edu)

1:30 Substrate stratification: A media management strategy for increased resource efficiency. Jeb S. Fields^{1*}, James S. Owen, Jr.², and James Altland², ¹Hammond Research Station, 21549 Old Covington Hwy, Louisiana State University Agricultural Center. Hammond, LA 70403, ²Hampton Roads Agricultural Research and Extension Center, 1444 Diamond Springs Rd., Virginia Tech, Virginia Beach, VA 23455, and ³USDA-ARS, 1680 Madison Ave., Wooster, OH 44691. (JSFields@agcenter.lsu.edu)

1:45 Analysis of energy use and its impact on carbon footprint of four greenhouse model systems. Dewayne L. Ingram¹, Charles R. Hall² and Joshua Knight¹, ¹Department of Horticulture, University of Kentucky, Lexington, KY 40506 and ²Department of Horticulture, Texas A&M University, College Station, TX 77843. (dingram@uky.edu)

2:00 Break

2:15 Carbohydrate allocation of creeping bentgrass under temporal shade. Saydi Loewer, Naba Amgain*, Paden House, and

Charles Fontanier. Department of Horticulture and Landscape Architecture, 358 Ag Hall, Oklahoma State University, Stillwater, OK 74078. (Naba@okstate.edu).

- 2:30 Boxwood dieback: A new disease of boxwood in the United States.** Raj Singh, Plant Pathology and Crop Physiology Department, 434 Life Sciences Building, Louisiana State University Agricultural Center, Baton Rouge, LA 70803. (rsingh@agcenter.lsu.edu)
- 2:45 Climate change raises unforeseen challenges to plant development and specification for sustainable 21st century built environments.** Michael A. Arnold*, Department of Horticultural Sciences, Texas A&M University, College Station, TX 77843. (ma-arnold@tamu.edu)

FRUIT CROPS

Building: Omni
Room: Old Louisville
Presiding: Justin Scheiner, Chair
Abstracts: To publish abstract in *HortScience*, see instructions at end of program. Submit on disk at meeting or email to: jscheiner@tamu.edu

- 1:00 Canopy Management Evaluation of Three Arkansas Table Grape Cultivars: Gratitude, Faith, and Jupiter Grown Under a High Tunnel System.** Jose Hernandez^{1*}, Virginia Beasley¹, Karlee Pruitt¹, and M. E. Garcia¹, 316 Plant Science, Department of Horticulture, University of Arkansas, Fayetteville, AR 72701. (megarcia@uark.edu)
- 1:15 Post-harvest Storage Performance of Three Table Grape Cultivars: Gratitude, Faith, and Jupiter Under a High Tunnel System.** Virginia Beasley^{1*}, Renee Threlfall², Jose Hernandez¹, Karlee Pruitt¹, and M. E. Garcia¹, 316 Plant Science, Department of Horticulture, University of Arkansas, Fayetteville, AR 72701, 2650 N. Young Ave. Food Science Department, University of Arkansas, Fayetteville, AR 72701. (megarcia@uark.edu)
- 1:30 Link Between Fruit Development and Mature Fruit Drop in Huanglongbing-Affected Sweet Orange (*Citrus sinensis*).**

Lisa Tang*, Sukhdeep Singh, and Tripti Vashisth, Citrus Research and Education Center, University of Florida, Lake Alfred, FL 33850. (tvashisth@ufl.edu)

- 1:45 Update on UGA Research for Irrigation and Fertilization Practices for Young Peach Trees in the Southeastern United States.** Bruno Casamali¹, Marc W. van Iersel², and Dario J. Chavez^{*1}, ¹1109 Experiment St., Depart of Horticulture, Univ of Georgia, Griffin, GA 30223, ²1111 Miller Plant Science Bldg., Depart of Horticulture, Univ of Georgia, Athens, GA 30602 (dchavez@uga.edu)
- 2:00 Identifying Quality and Sensory Attributes of Arkansas-grown Hops.** Renee T. Threlfall^{1*}, Arnout VanDamme¹, James O. McCleelan¹, Amanda L. McWhirt², and Jackie Lee³, ¹2650 N. Young Avenue, Food Science Department, Univ of Arkansas, Fayetteville, AR 72704, ²301 S. University, Cooperative Extension Service, Univ of Arkansas, Little Rock, AR 72204. ³1749 State Hwy 818, Fruit Research Station, Univ of Arkansas, Clarksville, AR 72830. (rthrelf@uark.edu)
- 2:15 Break**
- 2:30 Consumer Sensory Attributes of Arkansas Fresh-Market Blackberry Cultivars that Impact Marketability.** Renee T. Threlfall^{1*}, John R. Clark², and Margaret L. Worthington², ¹2650 N. Young Avenue, Food Science Department, University of Arkansas, Fayetteville, AR 72704, ²316 Plant Science, Horticulture Department, University of Arkansas, Fayetteville, AR 72701. (rthrelf@uark.edu)
- 2:45 Evaluating the Potential for Contamination of Grapevine Petiole Versus Whole Leaf Tissue Samples for Nutrient Analysis.** Justin Scheiner* and Fran Pontasch, Depart of Horticultural Sciences, Texas A&M Univ, Texas A&M AgriLife Extension, TAMU, College Station, TX 77843. (jscheiner@tamu.edu)
- 3:00 Effect of Foliar Application of ERGER on Growth and Fruit Quality of Peach cv. 'UFSun'.** Shirin Shahkoomahally and Ali Sarkhosh. Department of Horticultural Science, University of Florida, Gainesville, FL 32611. (s.shahkoomahally@ufl.edu)

- 3:15 Two Year Evaluation of Biopesticide Combinations for Plasticulture Strawberries Grown in High Tunnels in Arkansas.** M. Elena Garcia*¹, Karlee Pruitt¹, Russ Wallace², ¹316 Plant Science, Department of Horticulture, University of Arkansas, Fayetteville, AR 72701, ² 1102 East FM 1294, Texas A&M University, Lubbock, TX 79403. (megarcia@uark.edu)
- 3:30 Post-harvest Broad Mite (*Polyphagotarsonemus latus*) Infestations in Arkansas Blackberry.** Aaron J. Cato, 2301 South University Ave, Department of Horticulture, University of Arkansas, Little Rock, AR, 72204. (acato@uaex.edu)
- 3:45 Freezing Temperature Responses of Flower Stigmas on “Pawnee”, “Kanza” and “Maramec” Pecan Trees.** Lu Zhang*, Niels Maness and Justin Moss, Department of Horticulture & Landscape Architecture, Oklahoma State University, Stillwater, OK 74078. (luzhang@okstate.edu)

Sunday, February 2, 2020

ACB BUSINESS MEETING

Building: Omni
Room: Commonwealth
Time: 9:00 – 10:45
Presiding: Rhiannon de la Rosa, President

ANNUAL BUSINESS MEETING AND AWARDS PROGRAM

Building: Omni
Room: Commonwealth 3
Time: 11:00-12:30
Presiding: Bodie Pennisi, President

POSTER VIEWING & TAKE-DOWN POSTERS

Building: Omni
Room: Olmsted 4
Presiding: Yan Chen, Chair
Poster Viewing: Sunday 8:00-10:45
Poster Take-down: Sunday, 1:00 – 3:00

SECTION TITLES

VEGETABLE CROPS

Building: Omni
Room: Oak
Presiding: Peter Dittmar, Chair
Abstracts: To publish abstract in *HortScience*, see instructions at end of program. Submit on disk at meeting or email to Chair: pdittmar@ufl.edu

8:00 Effect of Carolina Strongback Watermelon Rootstock on Grafted Greenhouse Cucumber Production. Richard L. Hassell*, Coastal Research and Education Center, Clemson University, Charleston, SC 29414. (rhassell@clemson.edu)

8:15 Evaluating Nutrient Uptake in Leafy Greens and Vegetable Crop Species Grown in Peat-based Substrate and Hydroponics. Lauren Houston and Ryan Diskson. Department of Horticulture, University of Arkansas, 311 Plant Science Building, Fayetteville, AR 72701.

8:30 Effect of multi-cropped plastic mulching on yellow squash and zucchini production. Andre Luiz Bicaia da Silva*, Joara Secchi Candian, Elizanilda Ramalho do Rego. Department of Horticulture, University of Georgia, Tifton, GA 31793. (adasilva@uga.edu)

8:45 Farmers’ Opinions of Cover Crop Integration in Specialty Crop Systems in Puerto Rico and St. Croix, USVI. Danielle Treadwell¹*, Jose Perez¹, Stuart Wiess², and David Campbell¹. ¹P.O. Box 110690, Horticultural Sciences Department, University of Florida-IFAS, Gainesville, FL 32611, ²University of the Virgin Islands (UVI) Agricultural Experiment Station (AES), RR#1, Box 10000, Kingshill, U.S. Virgin Islands 008050 (ddtreadw@ufl.edu)

9:00 Break

9:15 Weed Control in Bok Choy following Cover Crops with and without S-metolachlor. Peter J. Dittmar¹* and Nathan Boyd². ¹Horticultural Sciences Department, University of Florida, Gainesville, FL 32611, ²Gulf Coast Research and Extension Center, Wimauma, FL 33598. (pdittmar@ufl.edu)

- 9:30 Comparison of Tomato Genotypes Grown Under Conventional and Organic Production System for Nutrient Composition and Fruit Quality.** Dilip R. Panthee^{1*} and Penelope Perkins-Veazie². ¹Department of Horticultural Science, North Carolina State University, Mountain Horticultural Crops Research & Extension Center, 455 Research Dr., Mills River, NC 28759. ²Department of Horticultural Science, North Carolina State University, Plants for Human Health Institute, NC Research Campus, 600 Laureate

FLORICULTURE, ORNAMENALS AND TURF

- Building:** Omni
Room: Charred
Presiding: Jeb Fields, Chair
Abstracts: To publish abstract in *HortScience*, see instructions at end of program. Submit on disk at meeting or email to Chair: Jeb Fields, jfields@agcenter.lsu.edu
- 8:00 Current and future supply and demand for growing media in North America.** Brian E. Jackson, Department of Horticultural Science, NC State University, Raleigh, NC 27695. (Brian_Jackson@ncsu.edu)
- 8:15 Advancements in soilless substrates: Engineering, composition, and amendments.** Brian E. Jackson, Department of Horticultural Science, NC State University, Raleigh, NC 27695. (Brian_Jackson@ncsu.edu)
- 8:30 Marketing Matters: Interpreting survey-based heatmaps to understand consumer preferences for elements of Facebook posts designed to market petunias online.** Anissa M. Zagonel^{1*}, Lauri M. Baker², Cheryl R. Boyer³, and Hikaru H. Peterson⁴. ¹Center for Rural Enterprise Engagement, University of Florida, Gainesville, FL 32611, ²Department of Agricultural Education and Communication, University of Florida, Gainesville, FL 32611, ³Department of Horticulture and Natural Resources, Kansas State University, Manhattan, KS 66506, ⁴Department of Applied Economics, University of Minnesota, St. Paul, MN 55108. (azagonel@ufl.edu)

- 8:45 Transdisciplinary work in horticulture: The center for rural enterprise engagement.** Cheryl R. Boyer^{1*}, Hikaru H. Peterson², and Lauri M. Baker³. ¹Department of Horticulture and Natural Resources, Kansas State University, Manhattan, KS 66506, ²Department of Applied Economics, University of Minnesota, St. Paul, MN 55108, ³Department of Agricultural Education and Communication, University of Florida, Gainesville, FL 32611. (crboyer@ksu.edu)

9:00 Break

- 9:15 Rain or irrigation: A container plant producer's challenge.** Tom Yeager*, Department of Environmental Horticulture, University of Florida, IFAS, Gainesville, FL 32611. (yeagert@ufl.edu)
- 9:30 Fertilizer strategies to improve post-production performance of container-grown petunia.** Ryan Dickson, Department of Horticulture, University of Arkansas, Fayetteville, AR 72701. (ryand@uark.edu)
- 9:45 Evaluating peat substrate amended with wood products for effects on nitrogen immobilization and plant performance with petunia.** Kalyn Helms, Department of Horticulture, University of Arkansas, Fayetteville, AR 72701 (knhelms@uark.edu)
- 10:00 Improving Nursery Crop Pest Management with Precision Pesticide Application Technology.** Amy Fulcher^{1*}, Lauren Fessler¹, Wesley Wright², Heping Zhu³, Trystan Bordeaux¹, and Luc Nadaud¹. ¹Department of Plant Sciences, 2505 E.J. Chapman Drive, University of Tennessee, Knoxville, TN 37996-4500, ²Biosystems Engineering and Soil Science, 2506 E.J. Chapman Drive, University of Tennessee, Knoxville, TN 37996-4531, and ³USDA-ARS, 1680 Madison Ave., Wooster, OH 44691. (afulcher@utk.edu)

FRUIT CROPS

- Building:** Omni
Room: Barley
Presiding: Justin Scheiner, Chair
Abstracts: To publish abstract in *HortScience*, see instructions at end of program.

Submit on disk at meeting or email to
Chair: jscheiner@tamu.edu

- 8:00 Higher Renovation Pruning Height Improves Early Yields of ‘Woodard’ Rabbiteye Blueberry.** Eric T. Stafne^{1*} and Barbara J. Smith², ¹South Branch Experiment Station, Coastal Research and Extension Center, Mississippi State University, 810 Hwy 26 West, Poplarville, MS 39470, ²USDA-ARS Thad Cochran Southern Horticultural Laboratory, 810 Hwy 26 West, Poplarville, MS 39470. (eric.stafne@msstate.edu)
- 8:15 Additional Nitrogen Application May Reduce White Drupelet Disorder in ‘Sweetie Pie’ Blackberry.** Eric T. Stafne^{1*} and Barbara J. Smith², ¹South Branch Experiment Station, Coastal Research and Extension Center, Mississippi State University, 810 Hwy 26 West, Poplarville, MS 39470, ²USDA-ARS Thad Cochran Southern Horticultural Laboratory, 810 Hwy 26 West, Poplarville, MS 39470. (eric.stafne@msstate.edu)
- 8:30 Assessment of Size Controlling Peach Rootstocks for High Density Orchards in Alabama.** Elina D. Coneva, 101 Funchess Hall, Department of Horticulture, Auburn University, Auburn, AL 36849. (Edc0001@auburn.edu)
- 8:45 Response of Young Field-Grown Kiwifruit (*Actinidia chinensis* Planch. and *A. deliciosa* A. Chev.) Plants to Fall Frost.** Tim Hartmann^{1*}, David Creech², Larry Stein³, and Justin Scheiner¹ ¹Department of Horticultural Sciences, Texas A&M University, College Station, Texas 77843 ²SFA Gardens, Stephen F. Austin State University, Nacogdoches, TX 75962, ³Department of Horticultural Sciences, Texas A&M University, Uvalde, TX 78802 (t-hartmann@tamu.edu)
- 9:00 Breeding for Prunus Rootstock Tolerance to Replant Diseases.** Ksenija Gasic^{1*}, Sarah Miller¹, Goran Barac², Christopher Saski¹, Guido Schnabel¹ and Gregory Reighard¹, ¹Department of Plant and Environmental Sciences, Clemson University, Clemson, SC 29634-0310, ²Faculty of Agriculture, University of Novi Sad, Novi Sad 21000, Serbia . (kgasic@clemson.edu)

9:15 Break

- 9:30 Evaluation of Growth and Physiological Responses of HLB Affected Citrus Trees to Thermotherapy.** Pawan Kumar*, Megan Dewdney, Evan Johnson and Tripti Vashisth, Citrus Research and Education Center, University of Florida/IFAS, 700 Experiment Station Rd. Lake Alfred, FL 33850. (tvashisth@ufl.edu)
- 9:45 Exploring Potassium Balance in Southeastern Peach Orchards.** Brian T. Lawrence^{1*}, Qi Zhou^{2,1}, and Juan Carlos Melgar¹, ¹Department of Plant and Environmental Sciences, Clemson University, Clemson, SC 29631, ²University of California Cooperative Extension, Santa Clara County, 1553 Berger D. Bldg. 1, San Jose, CA 95112. (btlawre@g.clemson.edu)
- 10:00 History, Inventory and Contributions of the Small Fruit Program at Stephen F. Austin State University.** David Creech* and Malcolm Turner, SFA Gardens, Stephen F. Austin State University, Nacogdoches, TX 75962. (dcreech@sfasu.edu)
- 10:15 Effect of Calcium Sulfate on Southern Highbush Blueberry Establishment.** Erick D. Smith^{1*}, Chelsea Matewe², Jonathan Oliver², ¹Department of Horticulture, University of Georgia – Tifton Campus 31793, ²Department of Pathology, University of Georgia – Tifton Campus 31793. (ericks@uga.edu)
- 10:30 Fruit Characterization of Ecuadorian *P. serotina* subsp. *Capuli*.** Sakshi Pathania^{1*}, Juan C. Carrasco², Carlos R. Chavez², Luis Fiallos³, and Dario J. Chavez¹ ¹University of Georgia, Department of Horticulture, Griffin, GA, USA; ²Faculty of Natural Resources, Escuela Superior Politécnica de Chimborazo, Riobamba, Ecuador; ³Faculty of Livestock Sciences, Escuela Superior Politécnica de Chimborazo, Riobamba, Ecuador. (sp28191@uga.edu)

POSTHARVEST AND BIOTECHNOLOGY

Building: Omni
Room: Wheat
Presiding: Anne Randle, Chair
Abstracts: To publish abstract in *HortScience*,

see instructions at end of program.
Submit on disk at meeting or email to
Chair: arandle@uga.edu

8:00 Partial Extraction of Aromatic Compounds from Dehydrated Herbs: Basil (*Ocimum* sp. L.) and Cilantro (*Coriandrum sativum* L.). Niels Maness^{1*}, Elif Kalkan¹, Jasreen Sekhon², Carol Jones³, and Donna Chrz¹, ¹Department of Horticulture and L.A., 358 Ag. Hall, Oklahoma State University, Stillwater, OK 74078, ²Department of Culinary Arts and Food Science, Drexel University, 3141 Chestnut Street, Philadelphia, PA 19104, ³Department of Biosystems and Agricultural Engineering, 216 Ag. Hall, Oklahoma State University, Stillwater, OK 74078. (niels.maness@okstate.edu)

8:15 Diabetes to Cancer: Plants in Oklahoma That Can Make a Difference. Niels Maness^{*1}, Jonathan Fenhaus², Katelyn Stenmark¹ and Lu Zhang¹, ¹Department of Horticulture and Landscape Architecture, Oklahoma State University, Stillwater, OK 74078, ²Department of Biology and Chemistry, University of Science and Arts of Oklahoma, Chickasha, OK 73018. (niels.maness@okstate.edu)

8:30 Postharvest Extraction of Pecan Oil: Quantitation of Tocopherols, Tocotrienols and Squalene in Oklahoma Pecan Cultivars. Jonathan Fenhaus^{*1}, Niels Maness² and Lu Zhang², ¹ Department of Biology and Chemistry, University of Science and Arts of Oklahoma, Chickasha, OK 73018, ²Department of Horticulture and Landscape Architecture, Oklahoma State University, Stillwater, OK 74078. (jfen8162@usao.edu)

8:45 Harvesting, Extraction Processing and Purification of Podophyllotoxin from Eastern Red Cedar (*Juniperus virginiana* L.) in Oklahoma. Katelyn Stenmark^{*} and Niels Maness, Department of Horticulture and Landscape Architecture, Oklahoma State University, Stillwater, OK 74078. (katie.stenmark@okstate.edu)

9:00 Hollow heart disorder and its relationship to cell wall pectins in grafted and non-grafted 'Liberty' watermelon. Marlee A. Trandel^{*1}, Penelope Perkins-Veazie¹, Suzanne Johanningsmeier², Jonathan Schultheis³ and Chris Gunter³, ¹North

Carolina State University, Department of Horticultural Sciences, 600 Laureate Way, Plants for Human Health Institute, Kannapolis NC 28081, ²North Carolina State University, Department of Food, Bioprocessing and Nutrition Sciences, 400 Dan Allen Drive, Schaub Hall, Raleigh NC 27606, ³North Carolina State University, Department of Horticultural Sciences, 2721 Founders Drive, Kilgore Hall, Raleigh NC 27606. (matrande@ncsu.edu)

9:15 Break

9:30 Pumpkin Postharvest: Stem Retention and Moisture with Storage. Penelope Perkins-Veazie^{*1}, Jonathan Schultheis² and Travis Birdsell³, ¹Plants for Human Health Institute, Department of Horticultural Science, North Carolina State University, Kannapolis, NC 28081, ² 2721 Founders Dr, Department of Horticultural Science, North Carolina State University, Raleigh, NC 27695, ³134 Government Circle Suite 202, Jefferson, NC 28640. (penelope_perkins@ncsu.edu)

9:45 Evaluating Rhubarb as a New Crop for North Carolina. Penelope Perkins-Veazie^{*1}, Danelle Cutting², Der Holcomb³, Lenny Rogers³, Kira Sims⁴, Hunter Barrier⁵, Matt Lenhardt⁶, Lauren Hill⁷, April Vigardt⁸, Michael Fine⁹ and Elina Snyder¹⁰, ¹Plants for Human Health Institute, Department of Horticultural Science, North Carolina State University, Kannapolis, NC 28081, ²217 S Main St, Salisbury, NC 28144, ³151 W Main Ave, Taylorsville, NC 28681, ⁵8530 Sherrills Ford Rd, Salisbury, NC 28147, ⁶444 Bristol Dr, Statesville, NC 28677, ⁷715 Cabarrus Ave W, Concord, NC 28027, ⁸1175 S Brady Ave # 2, Newton, NC 28658, ⁹2727 Old Concord Rd, Sailsbury NC 28146, ¹⁰416 Executive Dr, Wilkesboro, NC 28697. (penelope_perkins@ncsu.edu)

10:00 Impact of Postharvest and Processing of Fruits and Vegetables on Nutritional Security. Bhimanagouda S. Patil^{*}, G.K. Jayaprakasha, Jashbir Singh and Pratibha Acharya, Vegetable and Fruit Improvement Center, Department of Horticultural Sciences, USDA National Center of Excellence, Texas A&M University, College Station, TX 77843. (b-patil@tamu.edu)

10:15 Effect of Ethylene De-greening Treatment on Fruit Quality and Postharvest Storage Life of HLB-affected Mandarin Cultivars.

Faisal Shahzad^{1*}, Jeffrey K. Brecht², Yu Wang¹, Fred Gmitter¹, Mark A. Ritenour³ and Tripti Vashisth¹, ¹700 Experiment Station Rd, Citrus Research and Education Center, Lake Alfred, FL 33850, ²Horticulture Sciences Department, IFAS, Gainesville, University of Florida, FL 32611, ³Indian River Research and Education Center, Fort Pierce, University of Florida, FL 34945-3138. (amiabu@ufl.edu)

10:30 Preliminary investigation of role of rootstock cultivar on metabolite redox control in “Aztec Fuji” apple. Floyd M. Woods*, Elina Coneva, Dylan Teel, and Nylan Holmes, Department of Horticulture, Auburn University, Auburn, AL 36849-5408. (woodsfm@auburn.edu).

ANNUAL BUSINESS MEETING AND AWARDS PROGRAM

Building: Omni

Room: Commonwealth 3

Time: 11:00 12:30

Presiding: Bodie Pennisi, President

SAAS Meetings

SAAS Board Meeting

Bldg/Room: Omni Commonwealth 3

Time: 2:30 PM–3:30 PM

SAAS General Business Meeting

Bldg/Room: Omni Commonwealth 3

Time: 4:00 PM–4:30 PM

Special Speaker

Dr. J. Scott Angle

Director of NIFA, USDA

Update on NIFA

SAAS Social/Super Bowl Party

Place: Griff's Restaurant

Time: 5:00 PM – until

WORKING GROUPS

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

Watermelon Research Group

Presiding: Daniel Engle, Chair
egel@purdue.edu

Building: Omni

Room: Olmsted 3

Friday: 1:00-5:00

Saturday: 8:30-5:00

Friday, January 31, 2020

1:00 Introductions: All in attendance

1:45 Effects of Early Grafted Watermelons on Three Commercial Watermelon Cultivars Using Row Covers and Colored mulches. Dr. Richard L. Hassell, Clemson University, Coastal Research and Education Center, Charleston, SC USA

2:00 Effects of Hybrids Generated from Rootstock (Carolina Strongback) on Earliness, Fruit Quality, and Yields Grafted on Cultivar Sweet Dawn. Dr. Richard L. Hassell, Clemson University, Coastal Research and Education Center, Charleston, SC USA

2:20 Performance of Grafted Watermelons at Reduced Density in Indiana. Wejing Guan, Purdue University.

2:40 Discoveries in cell wall architecture of watermelon with hollow heart. Marlee A. Trandel^{*1}, Penelope Perkins-Veazie¹, Suzanne Johanningsmeier², Jonathan Schultheis³ and Chris Gunter North Carolina State University, Plants for Human Health Institute, North Carolina State University.

3:00 20 minutes break

3:20 Particle Films and Growth Regulators for Stress Reduction in Watermelons. Gordon C. Johnson^{*}, Department of Plant and Soil Sciences, University of Delaware, Elbert N. and Ann V. Carvel Research and Education Center, 16483 County Seat Highway, Georgetown, DE 19947. (gcjohn@udel.edu)

3:35 Break

3:55 A First in the Produce Industry: The Collection and Grower Access to Global Watermelon Research-Bob Morrissey, National Watermelon Association.

4:15 Watermelon Makes Headlines – 2019. Mark Arney, Executive Director of the National Promotion Board

4:35 Adjourn

Saturday, February 1, 2020

8:30 Introductions: All in attendance

9:15 Regional Watermelon Production Updates
Florida, Georgia, Carolinas, Delaware/Maryland, Mid-West, West USA

9:45 Variety updates from Seed Companies

10:00 2019 Seedless Watermelon Evaluation in Georgia.

10:15 2019 South Carolina Seedless and Mini Watermelon Variety Trial Results.

10:30 20 Minutes Break

10:50 2019 Watermelon Variety Evaluation in Indiana

11:05 Standard and Mini Seedless Watermelon Variety Trials Conducted by University of Delaware Cooperative Extension in 2019. Gordon Johnson^{*} and Emmalea Ernest, Department of Plant and Soil Sciences, University of Delaware, Elbert N. and Ann V. Carvel Research and Education Center, 16483 County Seat Highway, Georgetown, DE 19947. (gcjohn@udel.edu)

11:20 A new tool to help growers selecting watermelon varieties and pollinizers. Andre Luiz Biscaia Ribeiro da Silva, Ph.D., University of Georgia.

11:35 Lunch Break

1:30 Quantitative trait loci (QTL) associated with resistance to major diseases of watermelon identified by the CucCAP team. Sandra Branham, Pat Wechter, Shaker Kousik, Kai-shu Ling, and Amnon Levi.

1:50 Is There Light at the End of the Gummy Stem Blight Tunnel? Cecilia McGregor^{1*}, Winnie Gimode², Lincoln Adams², and Jorge Reyes¹, ¹Department of Horticulture, University of Georgia, 1111 Miller Plant Science Bldg., Athens, GA, 30302, ²Institute of Plant Breeding Genetics and Genomics,

University of Georgia, 1111 Miller Plant
Science Bldg., Athens, GA, 3030630602.
(cmcgre1@uga.edu)

- 2:10 A web application designed to search for pest management solutions for watermelon and other vegetables.** Dan Egel, Dept. of Botany and Plant Pathology, Purdue University
- 2:40 Management of Fusarium wilt of watermelon transplants in the greenhouse.** Dan Egel, Dept. of Botany and Plant Pathology, Purdue University

WRDG Business

- 3:00** Hot Topics
Website
New vice-chair selection
Upcoming meetings

4:00 Adjourn

Southern Fruit Workers

Presiding: Rachel Itle
ashi@uark.edu

Building: Omni

Room: Olmsted 2

Friday: 9:00 am – 5:00 pm

Horticulture Administrators

Presiding: Dean Kopsell, Chair
dean.kopsell@ufl.edu

Building: Omni

Room: Clifton

Friday: 1:00 pm – 5:00 pm

National Sweetpotato Working Group

Presiding: Lina Quesada

Location: Does not meet with SRASHS this year
Meets with US Sweetpotato Council
January 24-25
Nashville, TX

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

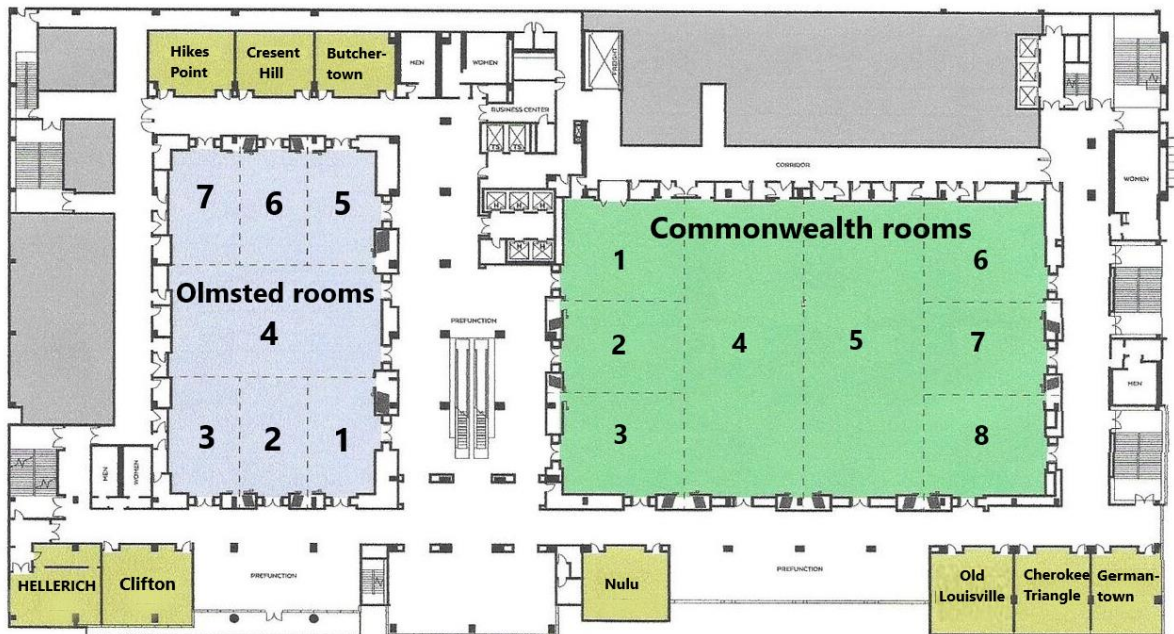
Eric T. Stafne*¹, John R. Clark¹, and Kim S. Lewers²

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

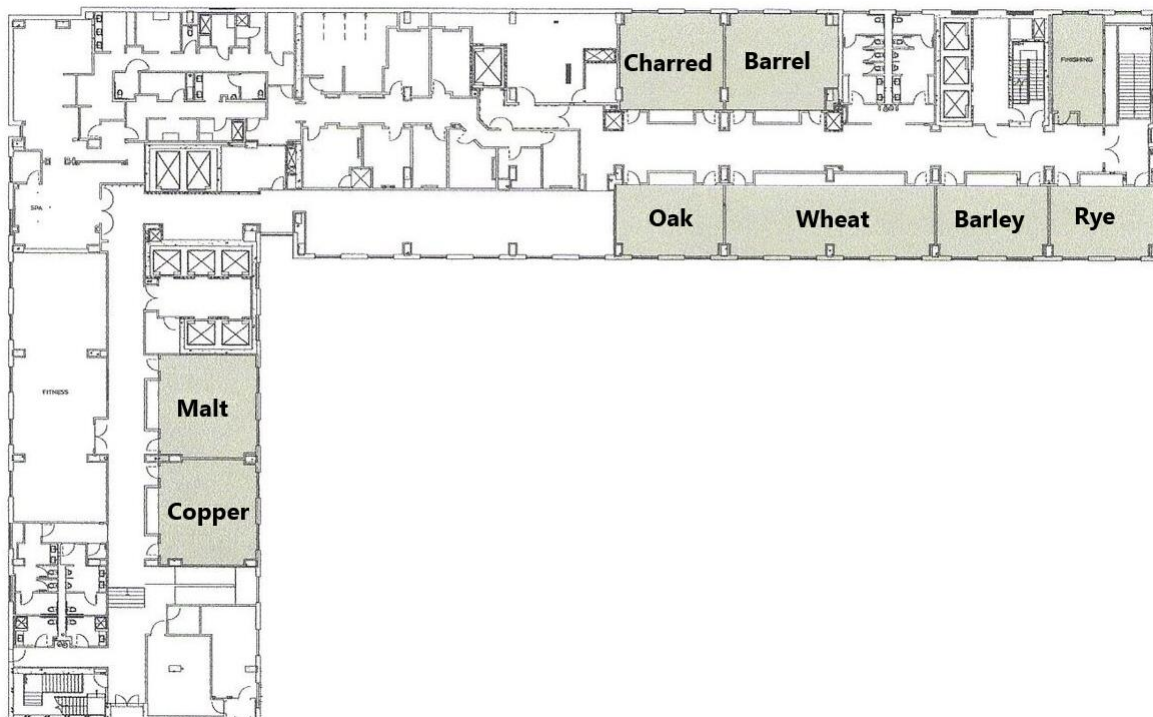
A tetraploid blackberry population that segregates for two important morphological traits, thornlessness and primocane fruiting, was tested with molecular marker analysis. Both randomly amplified polymorphic DNA (RAPD) and simple sequence repeat (SSR) markers were used to screen a population of 98 genotypes 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.

Omni Hotel Rooms

Omni Hotel level 2



Omni Hotel level 3



2020 Program at a Glance

Friday, January 31

[illegible]

Saturday, February 1

[illegible]

Sunday, February 2

Omni Room	8:00				9:00				10:00				11:00			12:00				1:00			2:00				3:00				4:00				5:00								
Second Street Prefunction	7:00 open					Registration																																					
Olmsted 4						Poster Session Viewing												Poster Take down																									
Commonwealth 3					ACB Business Meeting						Business Meeting/Awards Prog.																																
Oak	Vegetable Crops Section																																										
Charred	Floriculture,Ornammentals & Turf Section																																										
Barley	Fruit Crops Section																																										
Wheat	Postharvest & Biotechnology Section																																										
Commonwealth 3																									SAAS Board Mtg.						SAAS Bus.Mtg												
Griff's Restaurant																																							Super Bowl Party				



In

ASHS Chicago

