



**AMERICAN PHYTOPATHOLOGICAL SOCIETY
99TH SOUTHERN DIVISION MEETING**

PROGRAM

**MARCH 7-10, 2022
HYBRID MEETING**

2021 – 2022 SD-APS Officers

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Fulya Baysal-Gurel
Tennessee State University
Otis L. Floyd Nursery Research Center
472 Cadillac Lane
McMinnville, TN 37110
Email: fbaysalg@tnstate.edu

Secretary-Treasurer

Rebecca A. Melanson
Mississippi State University
Central MS Research and Extension Center
1320 Seven Springs Road
Raymond, MS 39154
Email: rebecca.melanson@msstate.edu

President-Elect

Lindsey Thiessen
USDA APHIS PPQ
Domestic and Emergency Scientific Support
920 Main Campus Drive, Suite 500
Raleigh, NC 27606
Email: lindsey.thiessen@usda.gov

Divisional Forum Rep - Southern

Nicole A. Gauthier
University of Kentucky
Plant Path & Crop Physiology
201 Plant Science Bldg.
Lexington, KY 40546
Email: ngauthier@uky.edu

Vice President

Daniel Anco
Clemson University
Edisto Research and Education Center
64 Research Road
Blackville, SC 29817
Email: danco@clermson.edu

Graduate Student Representatives

Hope Becton
Clemson University
Edisto Research and Education Center
64 Research Road
Blackville, SC 29817
Email: hbecton@clermson.edu

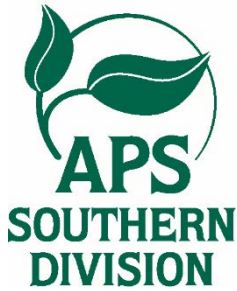
Past President

Trey Price
LSU AgCenter
Macon Ridge Research Station
212A Macon Ridge Road
Winnsboro, LA 71295
Email: pprice@agcenter.lsu.edu

Shelly Pate
University of Tennessee - Knoxville
370 Plant Biotechnology Building
Knoxville, TN 37996
Email: shenpate@vols.utk.edu

2022 SD-APS Vice President

Gary Vallad
University of Florida
Gulf Coast Research and Education Center
14625 CR 672
Wimauma, FL 33598
Email: gvallad@ufl.edu



AMERICAN PHYTOPATHOLOGICAL SOCIETY 99th SOUTHERN DIVISION MEETING PROGRAM

The 99th annual meeting of the American Phytopathological Society, Southern Division, is being held on March 7-10, 2022, in Chattanooga, TN, at The Read House. The meeting is a hybrid meeting with virtual attendance options for many events. Unless otherwise specified, all in-person program events will take place at The Read House; the main meeting room will be the Silver Ballroom. Breaks will be in the Centennial Room. Heavy hors d'oeuvres and a cash bar will be available at the Welcome Reception on Monday evening. Grab-and-go breakfast items will be provided prior to the start of the scientific program on Tuesday and Wednesday. A cash bar will also be available during the social hour prior to the Awards Banquet and the first half of the Awards Banquet. Additional details regarding transportation and meals are included in the program at the listing for each event. *All times listed in this program are in Eastern Standard Time (EST).*

Photos or screen shots may be taken during the meeting by SD-APS Executive Committee members or APS staff. As a meeting registrant and attendee, you agree to allow the SD-APS to use your photo in APS publications and on the SD-APS website and social media pages. As a courtesy to presenters, please *do not take photos or screenshots* of posters or presentation slides without presenter approval.

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Monday, March 7, 2022

4:00 - 5:00 PM Executive Committee Meeting

6:00 - 8:00 PM **Welcome Reception**
Centennial Room

Tuesday, March 8, 2022

8:00 - 8:30 AM **Welcome**
Fulya Baysal-Gurel, SD-APS President
Tennessee State University, McMinnville, TN
Chandra Reddy, Dean and Director of Research and Administrator of
Extension, College of Agriculture, Tennessee State University
Nick Gawel, Superintendent, Otis L. Floyd nursery Research Center, College
of Agriculture, Tennessee State University

Graduate Student Research Competition (Session I), Moderators: Sherif Sharfadiné and Rufus Akinrinlola, SD-APS Graduate Students

- 8:30 - 8:45 AM Efficacy of fungicides, insecticides, and crop protectants to manage Phytophthora root rot and ambrosia beetles in a simulated flooding condition. **Krishna Neupane**, Vivek Ojha, Karla Adesso, and Fulya Baysal-Gurel; Tennessee State University.
- 8:45 - 9:00 AM Evaluating alternatives to chlorothalonil for early and late leaf spot management in peanut. **Livleen Kaur**¹, Lee Campbell¹, Amanda Scherer¹, and Christopher Parker²; ¹Auburn University, ²Wiregrass Research and Extension Center, Auburn University.
- 9:00 - 9:15 AM The function of syncytium highly interconnected protein kinase hub genes in the soybean-soybean cyst nematode interaction. **Tracy Hawk**, Tarek Hewezi, Arbottam Piya, John Rice, and Neal Stewart; University of Tennessee.
- 9:15 - 9:30 AM Effects of pollination on *Ustilago maydis* disease development on the ears of maize and near isogenic lines. **Usha Bhatta** and Shavannor Smith; University of Georgia.
- 9:30 - 9:45 AM Assessing the effect of weather variables on dispersal of *Nothopassalora personata* conidia. **Hope Becton**, Kendall Kirk, and Dan Anco; Clemson University.
- 9:45 - 10:00 AM Examining the prevalence of oxytetracycline resistant and copper tolerant *Xanthomonas arboricola* pv. *pruni* in southeastern peach orchards. **Milan Panth**¹, Guido Schnabel¹, and Hehe Wang²; ¹Clemson University, ²Edisto Research and Extension Center, Clemson University.
- 10:00 - 10:15 AM Pyramiding resistance to early and late leaf spot in peanut with alleles from the wild species, *Arachis cardenasii*. **Maricel Gonzales**, Robert Kemerait, Albert Culbreath, David Bertoli, and Soraya Leal-Bertoli; University of Georgia.
- 10:15 - 10:30 AM *In vitro* evaluation of fungicide sensitivity of *Athelia rolfsii* isolates causing southern blight of soybean in Mississippi. **Adam Connor**, Tom W. Allen, B. Burgess, Alejandra Jimenez Madrid, Walter Solomon, and Tessie H. Wilkerson; Mississippi State University.
- 10:30 - 11:00 AM BREAK: Networking

Graduate Student Technical Session (Session II), Moderators: Daniela Negrete and Shelly Pate, SD-APS Graduate Students

- 11:00 - 11:15 AM Developing a detached leaf assay for screening soybean cultivars for target spot resistance. **Rachael Wolf**, John Rupe, Alejandro Rojas, and Travis Faske; University of Arkansas.
- 11:15 - 11:30 AM A statewide survey of viruses of blackberry in South Carolina. **Wanita Dantes**, Lucas Boatwright, and Elizabeth Cieniewicz; Clemson University.
- 11:30 - 11:45 AM Sensitivity of *Athelia rolfsii* from commercial peanut fields in Georgia to mefenftrifluconazole and solatenol. **Jessica Bell** and Timothy Brenneman; University of Georgia.
- 11:45 - 12:00 PM Identification and characterization *Fusarium* spp. Associated with bud and flower blight in Kentucky hemp. **Henry Smith**, Nicole Gauthier, Edward Dixon, Magdalena Ricciardi, and Gabdiel Yulfo-Soto; University of Kentucky.
- 12:00 - 2:00 PM Lunch (on your own)
- 12:00 - 2:00 PM **Careers 101 Workshop: Interviews** (Workshop)
Leader: **Nicole Gauthier**, SD-APS Divisional Forum Representative
Lunch provided for workshop pre-registrants.
Sponsored by Corteva Agriscience.
Gold Room

Graduate Student Technical Session (Session III), Moderators: Hope Becton, SD-APS Graduate Student, and Prabha Liyanapathirana, SD-APS Post-doctoral Researcher

* Virtual presenter/presentation.

- 2:00 - 2:15 PM UV sensitivity of *Botrytis cinerea*, *Calonectria pseudonaviculata*, *Phytophthium vexans* and inactivation of their inoculums using UV-C LED irradiation. **Bhawana Ghimire**, Brahmaiah Pendyala, Fulya Baysal-Gurel, Ankit Patras; Tennessee State University.
- 2:15 - 2:30 PM Genetic diversity and population structure of *Aspergillus* section *Nigri* populations in Georgia peanut seed and plants. **Brian Jordan**¹, Albert Culbreath¹, Timothy Brenneman¹, Marin Brewer¹, and Renee Arias²; ¹University of Georgia, ²U.S. Department of Agriculture.
- 2:30 - 2:45 PM Testing the susceptibility of hemp (*Cannabis sativa*) to black shank disease of tobacco. **Oluwatoni Adeokun**, Edward Dixon, Nicole Gauthier, Henry Smith, Noah Anthony Phiri, Desiree Szarka, Jessica Barnes; University of Kentucky.

Graduate Student Technical Session (Session III), *continued*

- 2:45 – 3:00 PM* Spatiotemporal variability of soilborne *Fusarium oxysporum* f. sp. *vasinfectum* race 4 in field and growth chamber trials. **Roy Davis** and Thomas Chappell; Texas A&M University.
- 3:00 - 3:15 PM Tennessee soybean production and soil microbiota are affected by cover crops, burndown timings, and seed treatments. **Shelly Pate** and Heather Kelly; University of Tennessee.
- 3:15 - 3:30 PM Evaluating the influence of Bt traits on mycotoxins in Tennessee corn. **Autumn McLaughlin** and Heather Kelly; University of Tennessee.
- 3:30 - 3:45 PM Inoculum and disease distribution of *Corynespora cassicola* in cotton. **Elias Zuchelli**¹, Daniel McDonald², and Heather Kelly³; ¹University of Tennessee Extension, ²Pheontype Screening Corporation, ³University of Tennessee.
- 3:45 - 4:00 PM Integrative techniques for investigating the diversity of *Fusarium* spp. found on field corn ears and their potential to produce fumonisin. **Claire Cooke**; University of Tennessee.
- 4:00 - 4:15 PM Biochemical and molecular analysis of disease protection and growth promotion in tomato from selected biological control isolates. **Jamille Robinson**; Tennessee State University.
- 4:15 - 4:30 PM* A wild relationship: Distribution and genetic diversity of ilaviruses in wild *Prunus* spp. **Fabian Rodriguez Bonilla** and Elizabeth Cieniewicz; Clemson University.
- 4:30 - 4:45 PM* Using meta-analysis to quantify across-study efficacy of fungicides used to control downy mildew in cucumber. **Sean Toporek** and Anthony Keinath; Coastal Research and Education Center, Clemson University.
- 4:45 - 5:00 PM* Advancing disease management strategies for root-knot nematodes (*Meloidogyne* spp.) on tomato. **Ashley Philbrick**, Inga Meadows, Frank Louws, Ella Reeves, and Adrienne Gorny; North Carolina State University.
- 5:45 - 7:00 PM **Graduate Student/Post-doc Social/Meeting**
Leaders: Hope Becton and Shelly Pate, SD-APS Graduate Student Representatives
Hors d'oeuvres will be provided for pre-registrants
Centennial Room

Wednesday, March 9, 2021

- 8:00 - 9:35 AM** **Symposium: “Ornamental Production Challenges and Perspectives: A Case Study of Boxwood Blight”**
Moderator: Fulya Baysal-Gurel, SD-APS President
- 8:00 AM Welcome and Speaker Introduction
Fulya Baysal-Gurel, Tennessee State University
- 8:05 AM Fighting a good fight against emerging invasive pathogen
Chuanxue Hong, Virginia Tech, Hampton Road Agricultural Research and Extension Center, Virginia Beach, VA
- 8:20 AM Invasion and expansion of boxwood blight pathogens in the U.S. and globally.
Jo Anne Crouch, USDA ARS, Mycology and Nematology Genetic Diversity and Biology Laboratory, Beltsville, MD
- 8:35 AM Economic impacts of boxwood blight on the U.S. boxwood market
Charlie Hall, Texas A&M University, Department of Horticultural Sciences, College Station, TX
- 8:50 AM Development of diagnostic assays for the boxwood blight pathogens *C. pseudonaviculata* and *C. henricotiae*
Douglas G. Luster, USDA ARS, Foreign Disease-Weed Science Research Unit, Frederick, MD
- 9:05 AM Boxwood breeding: selecting for blight resistance
Fred Gouker, USDA ARS, U.S. National Arboretum Floral and Nursery Plant Research Unit, Washington, D.C.
- 9:20 AM Extending knowledge of boxwood blight and its management to the ornamentals industry
Margery Daughtrey, Cornell University, Long Island Horticultural Research and Extension Center, Riverhead, NY
- 9:35 - 10:00 AM BREAK: Networking

10:00 - 11:30 AM **Symposium: “Industry Sponsors”**
Moderator: Fulya Baysal-Gurel, SD-APS President

Andy Shirley, *Field Scientist, Corteva Agriscience, Stoneville, MS*
Blaire Colvin, *Technical Service Manager, FMC Corporation, Birmingham, AL*
Kaelin Saul, *Technical Service PDP, BASF, Brandon, MS*
Nancy Rechcigl, *Field Technical Manager – Ornamentals, Syngenta, Greensboro, NC*
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Carlos E. Bográn, *Senior Technical Manager, OHP, College Station, TX*
Céline Pesce *Project Manager – Pathology Trait, HM Clause, Inc., Davis, CA*
Holly Davis, *Field Development Manager South Central U.S., Certis Biologicals, Floresville, TX*

11:30 - 1:30 PM Lunch Break and Business Meeting

1:30 - 2:00 PM BREAK: Networking

Technical Session, *Moderators: Milan Panth, SD-APS Graduate Student, and Misbah Munir, SD-APS Post-doctoral Researcher*

*Virtual presenter/presentation.

2:00 - 2:15 PM Introducing Theia fungicide. **Bond McInnes**, AgBiome.

2:15 - 2:30 PM Suppression of *Fusarium oxysporum* under anaerobic conditions by volatile fatty acids, Fe³⁺ and Mn²⁺. **James Littrell**, Utsala Shrestha, David Butler, Bonnie Ownley; University of Tennessee.

2:30 - 2:45 PM A potential ally: An entomopathogenic fungus of the hemp russet mite in Kentucky. **Magdalena Ricciardi**¹, Raul Villanueva¹, Henry Smith¹, Zenaida Vilorio², Misbakhul Munir³, Edward Dixon¹, Desiree Szarka¹, Nicole Gauthier¹, and Robert Pearce¹; ¹University of Kentucky, ²University of Kentucky Research and Education Center at Princeton, and ³Clemson University.

2:45 - 3:00 PM Survival of *Xanthomonas citri* subsp. *citri* after a severe winter storm. **Zen McKenzie** and Kevin Ong; Texas A&M University.

3:00 - 3:15 PM Raman spectroscopy automation for plant pathogen identification. **Baylee Voigt**, Kevin Ong, and Dmitry Kurouski; Texas A&M University.

Technical Session, *continued*

- 3:15 - 3:30 PM Differential efficacy of sulfur formulations for management of late leaf spot of peanut. **Albert Culbreath**¹, Timothy Brenneman¹, Robert Kemerait¹, and Emily Cantonwine²; ¹University of Georgia, ²Valdosta State University.
- 3:30 – 3:45 PM Sensitivity of *Septoria glycines* isolated from Mississippi to commonly used commercial fungicides. **Alejandra Jiminez Madrid**, Tom Allen, and Tessie Wilkerson; Mississippi State University.
- 3:45 - 4:00 PM* Developing resources for breeding watermelon varieties for resistance to whitefly-transmitted viruses. **Chandrasekar Kousik**¹, Bidisha Chanda¹, Mihir Mandal², Jennifer Ikerd¹, Mysore Sudarshana³, William Turechek⁴, and Scott Adkins⁵; ¹US Vegetable Laboratory USDA-ARS, ²University of California Davis, ³USDA-ARS CPGRU, ⁴USDA ARS SAA SPP, ⁵USDA ARS USHRL.
- 4:00 - 4:15 PM* WITHDRAWN
- 6:00 - 7:00 PM **Social Hour**
Centennial Room
- 7:00 - 9:00 PM **Awards Banquet**
Centennial Room

Thursday, March 10, 2022

- 8:00 - 7:00 PM **Nursery and A Little Taste of Tennessee Tour**
Transportation by shuttle will be provided. *Tour participants must meet in the hotel lobby at 7:45 AM.* The shuttle will depart from The Read House at 8:00 AM and will return to The Read House no later than 7:00 PM. Tour participants will travel to all tour stops; alternate arrangements to join or exist the tour late or early will not be made. *Breakfast and lunch will be provided for tour participants.*

Contributed Papers (Posters)

Posters are completely virtual. A PDF as well as a short, prerecorded video for each paper is available for viewing online from February 28, 2022 through March 10, 2022.

*Indicates Student Competition Paper

- *1. Evaluation of fungicides and biofungicides to control *Phytophthora* root rot and *Rhizoctonia* root rot on red maple. **Madhav Parajuli** and Fulya Baysal-Gurel; Tennessee State University.
- *2. Root mannitol content analysis against *Fusarium oxysporum* to confer resistance of Hydrangea cultivars. **Sandhya Neupane** and Fulya Baysal-Gurel; Tennessee State University.
- *3. The diversity and virulence of oomycetes associated with cotton seedlings in Alabama, and reduction of their disease severity using *Bacillus* biocontrol. **Oluwakemisola Olofintila**, Francesco S. Moen, Mark Liles, and Zachary Noel; Auburn University.
4. Preliminary examination of *Aphelenchoides* sp. detected from American ginseng, *Panax quinquefolius* in Tennessee. **Eleanor Lopez**¹, Ernest Bernard¹, Ying Gao², and Ethan Swiggart³; ¹University of Tennessee, ²Middle Tennessee State University International Ginseng Institute, ³Middle Tennessee State University.
5. First report of *Curvularia* leaf spot of field corn, caused by *Curvularia lunata*, in Mississippi and *in vitro* fungicide sensitivity assessments. **Alejandra Jiminez Madrid**, Tom Allen, Amilcar Vargas, Adam Connor, and Tessie Wilkerson; Mississippi State University.
6. Evaluation of fungicides for the control of southern blight on crabapple and daylily. **Prabha Liyanapathiranage**, Terri Simmons, Christina Jennings, and Fulya Baysal-Gurel; Tennessee State University.
7. Development of a greenhouse protocol to screen soybean for aerial blight resistance. **Kensy Rodriguez**¹, Vinson Doyle², Paul Price¹, and Sara Thomas-Sharma²; ¹LSU AgCenter, ²Department of Plant Pathology and Crop Physiology Louisiana State University.
8. Evaluation of fungicides for the control of boxwood blight. **Prabha Liyanapathiranage**¹, Sadikshya Sharma², Terri Simmons¹, Christina Jennings¹, and Fulya Baysal-Gurel¹; ¹Tennessee State University, ²University of Florida.
9. Evaluation of chemical seed treatments against *Rhizoctonia solani* and *Pythium* spp. in rice. **Sherif Sharfadine** and Alejandro Rojas; University of Arkansas.
10. Field assessment of fungicide efficacy against hemp leaf spot and powdery mildew in Tennessee, 2021. **Rufus Akinrinlola** and Zachariah Hansen; University of Tennessee.

Contributed Papers (Posters), continued

Posters will be displayed in the Carolina Ballroom.

*Indicates Student Competition Paper

- 11. WITHDRAWN
- 12. Evaluation of treatments for the control of bacterial blight on lilac. **Prabha Liyanapathirana**ge, Terri Simmons, Christina Jennings, and Fulya Baysal-Gurel; Tennessee State University.
- 13. Evaluation of fungicide product and timing for grey leaf spot managemnet in corn. **Amanda Blazek**, Elias Zuchelli, Healthier Kelly, and Autumn McLaughlin; University of Tennessee, University of Tennessee Extension-EPP.
- 14. Soil disinfestation with onion (*Allium cepa*) harvest waste and elevated temperature for winter squash (*Cucurbita moschata*) production. **James Stapleton** and Tarcisio Ruiz; Fruit Growers Supply Company.
- 15. Fungal and Oomycete diseases of American ginseng and current work evaluating organic disease control. **Ying Gao**¹, Fulya Baysal-Gurel², Robert Eichas³, Ethan Swiggart³, and Eleanor Lopez¹; ¹Middle Tennessee State University, National Ginseng Institute, ²Tennessee State University, ³Middle Tennessee State University.
- 16. Monitoring of drought induced physiological changes of *Cornus florida* grown in container production systems. **Krishna Neupane**, Anthony Witcher, and Fulya Baysal-Gurel; Tennessee State University.
- 17. Potential of soil amendment with date paste (*Phoenix dactylifera* ‘Medjool’) for non-chemical control of *Fusarium oxysporum* f.sp. *lactucaae*. **James Stapleton**, Christopher Simmons¹, Stephanie Slinski², and Jesus Fernandez-Bayo³; ¹Department of Food Science and Technology, University of California, ²Yuma Center of Excellence for Desert Agriculture-UA, ³Department of Biological and Agricultural Engineering, University of California.
- 18. WITHDRAWN
- 19. Fusarium head blight management in Alabama in 2021. **Kira Bowen**; Auburn University.
- 20. Composition and salt tolerance of fungi isolated from non-irrigated soils of The Old Rotation. **Laura Rodriguez**, Charis Harrison, Kira Bowen, and Zachary Noel; Auburn University.

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