**AGENDA AND TECHNICAL PROGRAM**

**National Sweetpotato Collaborators Group**

**Chairperson:** *Tristan Watson, Louisiana State University*

**Friday January 30, 2025**

**8:00 Registration**

**8:15 Call to Order and Announcements**

**8:30 State Reports**

**8:45 Discussion**

**Master of Science Student Competition**

**Presiding*:***

**9:00 Effect of sanitizer, fungicide, and packing line configuration on postharvest management of sweetpotato black rot caused by *Ceratocystis fimbriata*.**

Hunter Collins1 and Lina Quesada-Ocampo1. 1North Carolina State University and NC Plant Sciences Initiative, Raleigh, NC 27606. (shcollin@ncsu.edu)

**9:15 Identifying the Weed Species Hosting Sweetpotato Potyviruses.**

Ajitha Ravikumar1, Elijah Agene1, and Sathish K. Ponniah1. 1University of Arkansas at Pine Bluff, Pine Bluff, AR 71601. (ponniahs@uapb.edu)

**9:30 Estimating the Effect of Sweetpotato Potyvirus on Different Generations of the Beauregard Variety.**

Linda Mukiri1 and Sathish K. Ponniah1.1University of Arkansas at Pine Bluff, Pine Bluff, AR 71601. (ponniahs@uapb.edu)

**9:45 Rotation, Cover Crop, and Fumigation Impacts on Guava Root-Knot Nematode Incidence in Field Studies in ‘Covington’ Sweetpotato.**

Baker Stickley1, Jonathan Schultheis1, Adrienne Gorny2, Jessica Dotray2, and Brandon Parker1. 1Horticultural Science Department, North Carolina State University, Raleigh, NC 27695, 2Department of Entomology and Plant Pathology, North Carolina State University, Raleigh, NC 27695. (bestickl@ncsu.edu)

**10:00 Reducing Sweetpotato Infection Through Vector Management.**

Rachel Morrison1, Lorin Harvey2, Natraj Krishnan1, Sead Sabanozovic1, and Fred Musser1.1Department of Agriculture Science and Plant Protection, Mississippi State University, MS 39762, 2Pontotoc Ridge-Flatwoods Branch Experiment Station, Mississippi State University, Pontotoc, MS 38863. (rem555@msstate.edu)

**10:15 Integrated Pest Management of Potyviruses: Evaluating the Effects of Border Crops and Alternative Controls in Sweetpotato Fields.**

Reuel Pablo1, Berenice Romero1, and Jeffrey A. Davis1. 1Department of Entomology, Louisiana State University Agricultural Center, Baton Rouge, LA 70803, USA. (rpablo@agcenter.lsu.edu)

**10:30 Break**

**10:45 Weevil Damage after Intercropping Sweetpotato with Jicama.**

Daryl A. Richards Jr.1, Imhotep Charles1, and Thomas W. Zimmerman1. 1University of the Virgin Islands, School of Agriculture, Agricultural Experiment Station, 10,000 Castle Burke, Kingshill, VI 00850. (daryl.richards@uvi.edu)

**11:00 Plant Growth Regulator Impact on Sweetpotato Slip Development.** Kerington Bass1, Lorin Harvey2, Bi Guihong1, Richard Harkess1, and Kelsey Harvey3. 1Department of Plant and Soil Science, Mississippi State University, MS, 39762. 2Pontotc-Ridge-Flatwoods Branch Experiment Station, Mississippi State University, Pontotoc, MS 38863. 3Prarie Research Unit, Mississippi State University, Prairie, MS 39756. (kb3270@msstate.edu)

**11:15 Evaluation of Sweetpotato Cultivars for Resistance to the Reniform Nematode.** Timothy Miller1 and Tristan Watson1. 1Department of Plant Pathology and Crop Physiology, LSU AgCenter, Baton Rouge, LA 70803. (TSMiller@agcenter.lsu.edu)

**11:30 Effect of Potash Rate and Harvest Timing on Covington Sweetpotato Sizing.** Brandon Parker1, Jonathan Schultheis1, Stu Michel1, and Baker Stickley1. 1Horticulture Science Department, North Carolina State University, Raleigh, NC 27695. (bkparker@ncsu.edu)

**11:45 Optimizing Light Intensity for Rooted Cuttings Production of Sweetpotato (*Ipomoea batata* L.) at the Micropropagation and Repository Unit (MPRU).**

Sofía Ruiz1,2, Christie Almeyda2, and Ricardo Hernández1. 1Horticultural Science Department, North Carolina State University, Raleigh, NC. 2Micropropagation and Repository Unit, Department of Entomology and Plant Pathology, North Carolina State University, Raleigh, NC 27695. (truizve@ncsu.edu)

**12:00 Lunch**

**PhD Student Competition**

**Presiding:**

**1:00 Genome-wide Association Study (GWAS) to Analyze the Genetic Variation of Fusarium Wilt Resistance in Louisiana Sweetpotato Population.**

Ajay Dhungana1, Imana Power2, Phillip A. Wadl3, and Don R. LaBonte1. 1School of Plant, Environmental, and Soil Sciences, Louisiana State University, 104 Sturgis Hall, Baton Rouge, LA 70803. 2Department of Plant Pathology and Crop Physiology, Louisiana State University Agricultural Center, 302 Life Sciences Building, Baton Rouge, LA 70803. 3United States Vegetable Laboratory, United States Department of Agriculture, Agriculture Research Service, Charleston, SC 29414. (adhung4@lsu.edu)

**1:15 Discovery of a major QTL for resistance to Fusarium wilt (*Fusarium oxysporum f. sp. batatas*) in ‘Covington’ sweetpotato (*Ipomoea batatas*).**

Simon Fraher1, Jonathan Kinczyk1, Gabriel Gesteira1, Chris Heim1, Sharon Williamson1, Bode Olukolu2, Guilherme Pereira3, Marcelo Mollinari1, Zhao-Bang Zeng1, Lina Quesada-Ocampo4, and Craig Yencho1.1Department of Horticultural Science, North Carolina State University, Raleigh, NC, USA. 2University of Tennessee Institute of Agriculture, Knoxville, TN, USA. 3Department of Agronomy, Federal University of Viçosa, Viçosa, Minas Gerais, Brazil. 4Department of Plant Pathology, North Carolina State University, Raleigh, NC, USA. (spfraher@ncsu.edu)

**1:30 Occurrence of fungal plant pathogens in sweetpotato production in Uganda, Africa.**

Carlos Morales, North Carolina State University, Raleigh, NC 27695. (camorales@ncsu.edu)

**1:45 The Relationships Between Generation, Virus Loads, and Yield in US Sweetpotatoes: Final Results From a Multi-State Trial.**

Rebecca Wasserman-Olin, Department of Agricultural and Resource Economics, Colorado State University, Fort Collins, CO 80523. (Rebecca.Wasserman-Olin@colostate.edu)

**2:00 Genotype Reveal: Variation in Nitrate and Phosphate Signaling Responses Highlight Sweetpotato Cultivar Differences During the Onset of Storage Root Formation.**

Lisa Arce1, Don LaBonte1, Arthur Villordon2, Cole Gregorie2, Mae Ann Bravo1, Marissa Barbosa1, and Mary Ann Munda1. 1LSU AgCenter School of Plant, Environmental, and Soil Sciences, Baton Rouge, LA 70803. 2LSU AgCenter Sweet Potato Research Station, Chase, LA 71324. (larce@agcenter.lsu.edu)

**2:15** **Break**

**2:30 Evidence for the Crucial Role of Nitrogen in Mediating Sink Strength and Storage Root Formation in Sweetpotato cv. Beauregard.**

Marissa B. Barbosa1, Lisa I. Arce1, Mae Ann A. Bravo1, Mary Ann A. Munda1, Arthur Q. Villordon2, Cole Gregorie2, and Don Labonte1. 1LSU AgCenter School of Plant, Environmental, and Soil Sciences, Baton Rouge, LA 70803. 2LSU AgCenter Sweetpotato Research Station, Chase. LA 71324. (mbarbosa@agcenter.lsu.edu)

**2:45 Variation in Root Architectural Adaptations in Putatively Low- and High Lead-Accumulating Sweetpotato Cultivars.**

Mae Ann Bravo1, Marissa Barbosa1, Brenda Tubana1, Jack Baricuatro2, and Arthur Villordon3. 1LSU School of Plant, Environmental, and Soil Sciences, LSU AgCenter, Baton Rouge, LA 70803. 2 Department of Chemistry and Physics, LSU-Shreveport, Shreveport, LA. 3LSU AgCenter Sweet Potato Research Station, Chase, LA 71324. (mbravo4@lsu.edu)

**3:00 Consumer Risk Perceptions of Sweetpotato Products and Processes.**

Rebekah Brown1 and Jonathan Allen1. 1Department of Food, Bioprocessing and Nutrition Sciences, North Carolina State University, Raleigh, NC 27695. (rmwilso2@ncsu.edu)

**3:15** **Effect of Chelated Iron as a Safener to Various Herbicide Treatments on 'Covington' Sweetpotato.**

Keith D. Starke1, Katherine M. Jennings1, Jonathan R. Schultheis1, David W. Monks1, and David L. Jordan2. 1Department of Horticultural Science, North Carolina State University, Raleigh, NC, USA. 2Department of Crop and Soil Sciences, North Carolina State University, Raleigh, NC, USA. (kdstarke@ncsu.edu)

**3:30 Hardening Off Sweetpotato Slips: Enhancing Survival and Productivity in Field Conditions.**

Pinkky Kanabar1, Lorin Harvey1, and Callie Morris1. 1Pontotoc Ridge-Flatwoods Branch Experiment Station, Mississippi State University, Pontotoc, MS 38863.

**Saturday February 1st, 2025**

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

**Plant Biology and Crop Production**

Presiding:

**8:15** **Sweet Potato Research & Development in Quebec, Canada.**

Carlos Martin, Nordany Brokers Inc., 189 Saint Regis, St. Roch de l' Achigan, QC, Canada. (camarba46@hotmail.com)

**8:30 Curing me softly: simulated water deprivation increases continuity and area of lignified tissue in ‘Beauregard’ sweetpotato periderm.**

Arthur Villordon1, Marissa Barbosa2, Mae Ann Bravo2, and Don LaBonte2. 1LSU AgCenter Sweet Potato Research Station, Chase, LA 71324. 2LSU School of Plant, Environmental, and Soil Sciences, Baton Rouge, LA 70803. (avillordon@agcenter.lsu.edu)

**8:45 Optimizing Sweetpotato Breeding With Data Management.**

Russell Mierop, NCSU Sweetpotato Breeding and Genetics Program. (ramierop@ncsu.edu)

**9:00 Identification of Genetic Loci Associated with Resistance to Root-Knot Nematodes and Insect Pests of Sweetpotato.**

Phillip A. Wadl1, Hannah E. Baker1, Catherine Wram2, Cris Taniguti3, Bhoja Basnet3, John Coffey1, Dongyan Zhao3, Tyler J. Slonecki3, Manoj Sapkota3, and William B. Rutter1. 1USDA, ARS, U.S. Vegetable Laboratory, Charleston, SC 29414. 2USDA, ARS, Mycology and Nematology Genetic Diversity and Biology Laboratory, Beltsville, MD 20705. 3Breeding Insight, Cornell University, Ithaca, NY 14853. (Phillip.wadl@usda.gov)

**9:15 Impact of Seed Generation on Yield and Virus Infection for Several Varieties: A CleanSEED Project Update from California.**

C. S. Stoddard1 and J.O. de Souza2. 1UC Cooperative Extension, Merced CA 95341. 2UC Davis Foundation Plant Science, Davis, CA 95616. (csstoddard@ucanr.edu)

**Processing and Marketing**

Presiding:

**9:30 Enhancing the Market Quality of Fresh Produce Using Sweetpotato-Based Nanoparticle Coatings.**

Ragab Abouzeid1, David Picha2, and Qinglin Wu1. 1School of Renewable Natural Resources, Louisiana State University Agricultural Center, Baton Rouge, LA 70803. 2School of Plant, Environmental and Soil Sciences, Louisiana State University Agricultural Center, Baton Rouge, LA 70803. (dpicha@agcenter.lsu.edu)

**9:45 Recent Developments in Understanding Acrylamide Formation in Fried Sweetpotatoes.**

Matthew C. Allan1, Baker Stickley2, Jonathan Schultheis2, and Suzanne D. Johanningsmeier1. 1USDA Agricultural Research Service, Food Science and Market Quality and Handling Research Unit, North Carolina State University, Raleigh, NC 27695. 2 Department of Horticultural Science, North Carolina State University, Raleigh, NC 27695. (matthew.allan@usda.gov)

**10:00 Break**

**Disease, Insect, and Weed Management**

Presiding:

**10:30 Blind Ring Test at the Sweetpotato Clean Centers: Efforts to improve virus testing protocols.**

Christie Almeyda1, Lorin Harvey2, Imana Power3, Sathish Ponniah4, and Maher Al Rwahnih5. 1Micropropagation and Repository Unit, North Carolina State University, Raleigh, NC 27695. 2Pontotoc Ridge-Flatwoods Branch Experiment Station, Mississippi State University, Pontotoc, MS 38863. 3Louisiana State University, Baton Rouge, LA 70803. 4University of Arkansas, Pine Bluff, AR 71601. 5Foundation Plant Services, University of California, Davis, CA 95616. (cvalmeyd@ncsu.edu)

**10:45 Resistance and susceptibility mechanisms of sweetpotatoes coinfected with sweetpotato chlorotic stunt and sweetpotato pakakuy viruses.**

Francis Wanjohi Kiemo2, Pál Salamon1, Zoltán Tóth1, and Zoltán Szabó1. 1Institute of Genetics and Biotechnology, Applied Plant Genomics Group, Hungarian University of Agriculture and Life Sciences, Godollo, Hungary. 2Pontotoc Ridge-Flatwoods Branch Experiment Station, Mississippi State University, Pontotoc, Mississippi, USA. (fwk11@msstate.edu)

**11:00 A Sweet Surprise: *Drosophila hydei* unveiled as a key vector of Sweetpotato Black Rot.**

Kelly Avila1, Madison Stahr1, Amanda Lytle1, Anders Huseth1, Matt Bertone1 and Lina Quesada-Ocampo1. 1Department of Entomology and Plant Pathology and NC Plant Sciences Initiative, North Carolina State University, Raleigh, NC 27695. (kjavila@ncsu.edu)

**11:15 Impact of Seed Generation on Yield and Virus Infection for Several Varieties: A CleanSEED Project Update from California.**

C. S. Stoddard1, and J.O. de Souza2. 1UC Cooperative Extension, Merced, CA 95341. 2UC Davis Foundation Plant Science, Davis, CA 95616. (csstoddard@ucanr.edu)

**Poster Session- 11:30-12:00**

**Screening Sweetpotato Germplasm for Resistance to *Meloidogyne incognita*.**

Hannah E. Baker1, Catherine Wram2, William B. Rutter1, and Phillip A. Wadl1. 1USDA, ARS, U.S. Vegetable Laboratory, Charleston, SC 29414. 2USDA, ARS, Mycology and Nematology Genetic Diversity and Biology Laboratory, Beltsville, MD 20705. (hannah.baker@usda.gov)

**Evaluation of Sweetpotato Cultivars for Resistance to the Reniform Nematode.**

Timothy Miller. Plant Pathology and Crop Physiology, Louisiana State University, Baton Rouge, LA 70803. (TSMiller@agcenter.lsu.edu)

**SCRI CleanSEED Update: Sweetpotato virus testing, LED lights, and hardening tests.** Sofia Ruiz1,2, Chunying Li1, Ricardo Hernández2, Carlos Santos1, Marcos Martinez1 and Christie Almeyda1. 1Micropropagation and Repository Unit (MPRU), Department of Entomology and Plant Pathology, NC State University, Raleigh, NC 27695. 2Controlled Environment Agriculture, Department of Horticultural Science, NC State University, Raleigh, NC 27695. (truizve@ncsu.edu)

**Consumer Risk Perceptions of Sweetpotato Products and Processes.**

Rebekah Brown1 and Jonathan Allen1. 1Department of Food, Bioprocessing, and Nutrition Sciences at North Carolina State University. (rmwilso2@ncsu.edu)

**Physicochemical Properties of Sweetpotato Starch.**

Mohamed Abd El-Aal1, Ragab Abouzeid1, David Picha2 and Qinglin Wu1. 1School of Renewable Natural Resources, Louisiana State University Agricultural Center, Baton Rouge, LA 70803. 2School of Plant, Environmental and Soil Sciences, Louisiana State University Agricultural Center, Baton Rouge, LA 70803. (dpicha@agcenter.lsu.edu)

**Machine Learning Analysis of Hyperspectral Images for Remote Detection of Sweet Potato Feathery Mottle Virus.**

Clayton Poplin Blake1, Madison Flasco1, and Imana L. Power1. 1Department of Plant Pathology and Crop Physiology, Louisiana State University Agricultural Center, Baton Rouge, LA 70803. (Cblake@agcenter.lsu.edu)

**Sweetpotato variety performance in spring cover crops.**

Prakriti Dhaka1,2, Juan C. Velasquez1, Giovana de Carvalho Silva1, Jianping-Zhang1, and Nilda Roma-Burgos1. 1 Department of Crop, Soil and Environmental Sciences. 2Cell and Molecular Biology, University of Arkansas, Fayetteville, AR (prakriti@uark.edu)

**Sweetpotato Variety Development in CA.**

C.S. Stoddard, UC Cooperative Extension, Merced, CA 95341. (csstoddard@ucanr.edu)

**12:00 Lunch**

**Business and Planning Meeting**

**1:00 Call to Order and Review of 2023 Minutes** Tristan Watson

**1:15 Graduate Student Contest Results** Michelle McHargue

**1:30 National Impact Award** Presiding

**1:45 Resolutions Committee Report**

-Ken Pecota, Cole Gregorie, Michelle McHargue

**2:00 Collaborator’s Trial Discussion** Presiding

**2:15 Nominations Committee Report**

-Craig Yencho, Mark Shankle, Tara Smith

**2:20 2026 Meeting Location** Lorin Harvey

**2:30 National Stakeholder Group Update** Lorin Harvey

**2:45 Multistate Project Update** David Monks

**3:00 Adjourn**