



WEED SCIENCE SOCIETY OF NORTH CAROLINA

Proceedings of the 42nd Annual Meeting of the Weed Science Society of North Carolina
March 13, 2024

“New Technologies in Weed Science”

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Opening Remarks

1. Dr. Charlie Cahoon, WSSNC President
2. Mr. Patrick Jones, Director of the Structural Pest Control and Pesticides Division
3. Dr. Loren Fisher, Assistant Director of Research, CALS

Guest Speakers

1. 2024 Worsham Lecture Series Presents: *Overview of Spray Drone Usages in the US*, Dr. Steve Li, Auburn University
2. *NC State: Experiences and Life Lessons*, Dr. Greg Elmore, Bayer Crop Science
3. *Drones: A Tool in Field Research for Imagery & Applications*, Mr. Harrison Ferebee, BASF Corporation
4. *Genomics of crop-related weeds*, Dr. Acer VanWallendael, North Carolina State University, Department of Horticulture
5. *Evaluating the John Deere See & Spray™ Sprayer in North Carolina*, Dr. Wes Everman, North Carolina State University, Department of Crop and Soil Science

Student Presentations

6. *Optimizing UAV Imagery to Predict Yield Loss in Maize Due to Weed Interference*, Mr. Avi Goldsmith, North Carolina State University, Department of Crop and Soil Science
7. *Investigating Triclopyr Drift under Roadside Conditions*, Ms. Estefania Gomiero Polli, North Carolina State University, Department of Crop and Soil Science
8. *Identification of Non-Target Site Resistance Mechanisms in Annual Bluegrass (*Poa annua* L.)*, Mr. Tripp Rogers, North Carolina State University, Department of Crop and Soil Science

9. *The Influence of Cotton Seed Quality on PRE Herbicide Tolerance*, North Carolina State University, Mr. Jacob Forehand, Department of Crop and Soil Science

Guest Comments

Dr. Jeff Mullahey, Department Head, North Carolina State University, Department of Crop and Soil Science

Posters

1. *Confirmation of a three-way (thifensulfuron, atrazine and glyphosate) herbicide resistant population of Palmer amaranth (*Amaranthus palmeri*) in North Carolina*, Ronel Argueta, North Carolina State University, Department of Crop and Soil Sciences
2. *siRNA- mediated Silencing of Phytoene Desaturase*, Caroline Barrett, North Carolina State University, Department of Crop and Soil Sciences
3. *Effect of Timing of the Weed Zapper on Palmer amaranth Control and Sweetpotato Yield and Quality*, Colton Blankenship, North Carolina State University, Department of Horticulture
4. *Anaerobic Soil Disinfestation: New Insight to Manage Weed in Organic Watermelon Production in South Carolina*, Sohaib Chattha, Clemson University, Department of Plant and Environmental Sciences
5. *Statewide screen of Italian ryegrass (*Lolium multiflorum*) populations with residual herbicides in North Carolina*, Diego Contreras, North Carolina State University, Department of Crop and Soil Sciences
6. *Effect of Transplant Type on Sweetpotato (*Ipomoea batatas*) Tolerance to Herbicides*, Samuel Crawford, North Carolina State University, Department of Horticulture
7. **Evaluating Monoecious Hydrilla Control Through Sequential Low-Dose Applications of Floryprauxifen-Benzyl in a North Carolina Pond*, Delaney Davenport, North Carolina State University, Department of Crop and Soil Sciences
8. *Evaluation of Residual Herbicide-Coated Fertilizer in Cotton*, Brock Dean, North Carolina State University, Department of Crop and Soil Sciences
9. **Herbicide Screening Trial to Compare Efficacy of Chemical Control on Three Hydrilla verticillata Biotypes*, Kara Foley, North Carolina State University, Department of Crop and Soil Sciences
10. *Efficacy of Fluridone in Peanut Production Systems*, Ethan Foote, North Carolina State University, Department of Crop and Soil Sciences
11. *Control of Common Ragweed in Cotton Production Without Fluometuron*, Jacob Forehand, North Carolina State University, Department of Crop and Soil Sciences
12. *Predicting Maize Yield Loss with UAV Measured Crop-Weed Ratios*, Avi Goldsmith, North Carolina State University, Department of Crop and Soil Sciences
13. *Response of Sweetpotato (*Ipomoea batatas*) to Herbicides Applied Post-transplant*, Stephen Ippolito, North Carolina State University, Department of Horticulture

14. Evaluating POST Herbicide Options for Cosmos Bipinnatus, James H Lee, North Carolina State University, Department of Crop and Soil Sciences
15. *Cotton response to simulated drift of herbicides commonly used to manage roadside vegetation in North Carolina*, Estefania Gomiero Polli, North Carolina State University, Department of Crop and Soil Sciences
16. *Investigating the mechanism of paraquat resistance in Italian ryegrass populations from North Carolina*, Jose H S de Sanctis, North Carolina State University, Department of Crop and Soil Sciences
17. Effects of Low-dose Applications of 2,4-D and Dicamba on Onion. Hope Thome, North Carolina State University, Department of Horticulture
18. *Screening Strategies for Allelopathy in Rye (*Secale cereale*) for Weed Suppression and Cover Crop Use, Aliyah Warris, North Carolina State University, Department of Crop and Soil Sciences

*Poster was not judged in the student contest.

2023 Endowment Awardee Presentations

1. Ms. Estefania Gomiero Polli
2. Mr. Jose Scarparo de Sanctis

Business Meeting

Dr. Charlie Cahoon, President, WSSNC.

Mr. Steve Hoyle, Retired, North Carolina State University, Department of Crop and Soil Sciences.

The business meeting was properly called to order at 2:45 pm

Minutes and proceedings of the 2023 meeting were read. A motion to approve was made by Harrison Ferebee and properly seconded by Kim Tutor. Motion passed.

Steve Hoyle presented the treasurers report. Meeting expenses were down from last year, both due to lower food cost and the waived venue fee. The closing balance of the checking and paypal accounts stands at \$5,861. The Morgan Stanley investment account currently stands at \$12,000. The endowment account stands at \$94,870, with \$8,015 available in interest and rollover spending.

This was the first meeting held at the Steve Troxler Agricultural Science Center. The center was very well received by attendees. The overwhelming consensus was to remain at this location moving forward.

After announcing the results of the 2024 officer election, a motion was made to adjourn by President Charlie Cahoon and properly seconded by Tripp Rogers. The 2024 annual meeting adjourned at 3:04 PM.

Awards and Contests

Outstanding PhD Student – Mr. Jose Scarparo de Sanctis

Outstanding MS Student – Mr. Jacob Cole Forehand

First Place PhD Poster – Ms. Estefania Gomiero Polli

Second Place PhD Poster – Mr. Jose Scarparo de Sanctis

Third Place PhD Poster – Mr. Colton Blankenship

First Place MS Poster – Mr. Brock Dean

Second Place MS Poster – Mr. Jacob Forehand

Third Place MS Poster – Mr. Samuel Crawford

Officers and Memberships

Newly Elected Officers:

Vice President: Mr. J. Harrison Ferebee IV, BASF

Executive Director (Academia): Mr. Keith Starke, North Carolina State University, Central Crops Research Station

Executive Director (At-Large): Mr. Joshua Joyner, Insight Agronomics

Student Representative: Mr. Stephen Ippolito, North Carolina State University, Department of Crop and Soil Sciences.

Distinguished Service Award

Dr. Carroll Moseley, Syngenta

Future Dates:

March 18, 2025

Adjournment