



# Weed Science Society of North Carolina



Volume 38, Issue 1

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## Letter from the President

Dr. Kyle Briscoe, SePRO Corporation

Welcome fellow WSSNC members. It has been an honor serve as President the past year. I'm extremely grateful to be involved with an organization at the state level that is dedicated to growing the weed science industry. I'm proud of the direction the society is heading, and I look forward to being actively involved for many years to come.

Please mark your calendars for the 38<sup>th</sup> Annual Meeting of the Weed Science Society of North Carolina. It will be held Thursday, March 12<sup>th</sup> at the J.C. Raulston Arboretum in Raleigh. Our Board of Directors has done an excellent job assembling a program focused on "Bridging the Gap: Communicating Science with the General Public". Speakers will cover topics ranging from weed science

government relations to glyphosate issues and their potential impact on our industry. We will also have graduate student presentations and a graduate student poster contest. The meeting will conclude with our business meeting. Please visit our new website [www.wssnc.org](http://www.wssnc.org) to register.

We look forward to seeing you at the meeting and appreciate your continued support of the society. WSSNC is one of the last state societies solely focused on weed science which is a testament to our strong membership. However, we must stay focused on growing and strengthening the society in the years to come. Please spread the word about WSSNC membership to your colleagues and industry partners.



## 2020 Annual Meeting

### "Bridging the Gap: Communicating Science with the General Public"

Keynote speaker:

Lee Van Wychen

"Educating Political Hacks and Bureaucrats in DC: Weed Science 101"

(Details on Page 2)

### Important Dates:

#### March 2-5, 2020

WSSA Annual Meeting  
Hyatt Regency Maui  
Maui, HI

#### March 12, 2020

WSSNC Annual Meeting  
JC Raulston Arboretum  
Raleigh, NC

Please consider becoming a sustaining corporate member in the Weed Science Society of North Carolina. Your sustaining membership helps us provide student awards, pays for annual meeting expenses, provides us the funding to keep our society active, and gives your company the recognition of supporting the discipline of weed science in North Carolina.

## Looking Forward: 2020 Annual Meeting

38<sup>th</sup> Annual Meeting  
**“Bridging the Gap:  
 Communicating  
 Science with the  
 General Public”**

### Attention!

I-440 road widening project construction may impact your drive to the arboretum. Check their website for updates.

[Updated Posted Here!](#)

### Bridging the Gap: Communicating Science with the General Public

March 12, 2020  
 JC Raulston Arboretum

#### Agenda

- 8:30 am – Poster Session (Graduate Students Present)
- 8:55 am – Opening remarks – Kyle Briscoe, President, WSSNC
- 9:00 am — Educating Political Hacks and Bureaucrats in DC Weed Science 101 — Dr. Lee Van Wychen, Executive Directory of Science Policy, WSSA
- 10:00 am — Break, Students at Posters
- 10:15 am — Row Spacing and Planting Date effect on the Critical Period of Grass Weed Control in Grain Sorghum in North Carolina — Mr. Diego Contreras, NCSU Crop and Soil Sciences
- 10:35 am — Tolerance of Blueberry, Strawberry, and Muscadine Grape to 2,4-D Choline — Ms. Kira Sims, NCSU Horticultural Science
- 10:55 am — Update on Glyphosate Topics Making the Headlines — Mr. Cole Waggoner, Bayer Crop Science
- 11:45 am — Dr. Jeff Mullahey, Department Head, NCSU Crop and Soil Sciences
- 11:55 am — Distinguished Service Award Ceremony
- 12:00 pm — Lunch, Fellowship, and Poster Viewing
- 1:00 pm — Communicating Science with the Public — Tracey Peake, Public Communication Specialist, NCSU
- 1:45 pm — Break, Students at Posters
- 2:00 pm — Bioavailability of atrazine to soybean (Glycine max) and other sensitive species in varying soil textures — Ms. Shwetha Ramanathan, NCSU Crop and Soil Sciences
- 2:20 pm — Defining Critical Control Windows Using Emergence and Phenology Models — Ms. Theresa Piskackova, NCSU Crop and Soil Sciences
- 2:40 pm — Presentation of Graduate Student Awards
- 3:00 pm — WSSNC Business Meeting
- 3:30 pm — Adjourn

\*Pesticide and CCA credits are pending approval.

## Congratulations!

Congratulations to the following student award winners from our 2019 Annual Meeting

<b>Outstanding PhD Student</b> — D.J. Mahoney	<b>First Place Award PhD Poster Contest</b> — D.J. Mahoney <b>Second Place Award PhD Poster Contest</b> — Patrick Maxwell <b>Third Place Award PhD Poster Contest</b> — Cole Smith
<b>Outstanding MS Student</b> — Drew Hare	<b>First Place Award MS Poster Contest</b> — Levi Moore <b>Second Place Award MS Poster Contest</b> — Diego Contreras <b>Third Place Award MS Poster Contest</b> — Alayne McKnight

# Congratulations!

## Recent Regional and National Accomplishments

NC State students have represented weed science well at recent meetings of various societies. In just 2020, students in weed science have spoken or presented posters at the following meetings:

Northeastern Weed Science Society  
 Northeastern Plant Pest and Soils Conference:  
 6 MS Students  
 3 PhD Students

National Sweetpotato Collaborators Meeting  
 2 PhD

Beltwide Cotton Conference  
 4 M.S.

Southern Nursery Association Research Conference  
 1 PhD

Southern Weed Science Society  
 1 Undergraduate Student  
 6 MS Students  
 2 PhD Students

Tobacco Workers Conference  
 1 PhD Student



Left: NC State students at the Southern Weed Science Society annual meeting. Left to Right: Diego Contreras, Andrew Blythe, Marco Fajardo, Shea Hoffman, Eric Jones, Dustin Black, Kira Sims, Joshua Joyner, and Sandy Ramsey

Right: PhD student Eric Jones placed 1st for his poster at the Northeastern Weed Science Society. Pictured with his advisor, Dr. Wes Everman. Also, congratulations to Theresa Piskackova on placing 3rd for her poster at the NEWSS (not pictured).



Left: MS student, Joshua Joyner, won 1<sup>st</sup> place for his paper presentation at the Southern Weed Science Society annual meeting. Pictured with his advisor, Dr. Charlie Cahoon, Jr.

Dr. David Monks, Associate Director, NC Agricultural Research Service, was recently with the National Impact award from the National Sweetpotato Collaborators Group for his contributions and accomplishments to the sweetpotato industry. Join me in congratulating Dr. Monks.

Right: NC State Students swept at the National Sweetpotato collaborators meeting in Nashville, TN. Pictured are PhD students Madison Stahr, Cole Smith, and Levi Moore, who won 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> for their oral presentations, respectively, with Dr. Monks, winner of the impact award. Madison works on black rot in Dr. Quesada's lab. Cole and Levi work in sweetpotato weed control in Dr. Katie Jennings lab.





38<sup>th</sup> Annual Meeting  
**“Bridging the Gap:  
 Communicating  
 Science with the  
 General Public”**

## Board Candidates

Vice President — Dr. Bridget Lassiter, NCDA&CS Weed Specialist

Bridget Lassiter is the weed specialist for the North Carolina Department of Agriculture, where she implements control programs for federal and state noxious weeds affecting the agricultural industry. She is also the director of the Witchweed Eradication Program in North Carolina. Prior to that, she worked for NC State for 14 years doing research, education, and outreach about integrated pest management in peanut, turf and aquatic systems. Bridget is a native of Oregon, where she received her bachelor’s degree in Crop and Soil Science. She graduated with Masters and Doctoral degrees from NC State in Crop Science and Agricultural Education. She lives on a 3rd generation family farm in North Carolina with her husband and two kids.



Director At-Large — Dr. Denis J. Mahoney, Herbicide Tech. Support Specialist, Syngenta

DJ Mahoney was born and raised in Darlington, SC. He studied Turfgrass Management at Clemson University and following graduation in 2012, accepted a Research Assistant position under Dr. Travis Gannon and Dr. Matthew Polizzotto at North Carolina State University. He conducted research on arsenic movement from MSMA following application including a novel approach to quantify the effect of turfgrass management practices on arsenic distribution and species transformation. Following graduation in 2014, DJ accepted a job with DuPont Crop Protection as an Associate Investigator in the Herbicide Discovery Biology group. This experience highlighted some major issues regarding weed control and resistance the Crop Science community is facing. He then sought out a PhD program to research these issues and was offered a Research Assistant position with Dr. David Jordan where he focused on many aspects of weed science including chemical and cultural management techniques, weed ecology, physiology, and genetics. Following graduation in December 2019, DJ began his career with Syngenta Cop Protection as the Herbicide Technical Support specialist.

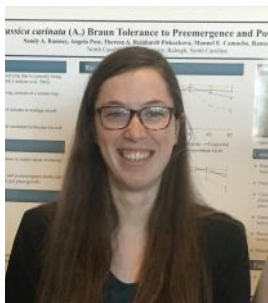


Director from Academia—Charlie Cahoon, Jr., Extension Weed Specialist & Assistant Professor

Dr. Charlie Cahoon is an assistant professor and extension weed specialist for corn and cotton at NC State University. Prior to returning to NC State, Charlie served as an extension weed specialist at Virginia Tech-Eastern Shore AR-EC. His research focuses on developing innovative and sustainable weed management solutions for corn and cotton. Additionally, at the forefront of his research are management of herbicide-resistant common ragweed, horseweed, Palmer amaranth, and Italian ryegrass and preemptive measures for avoiding future herbicide resistance. He is also committed to promoting proper stewardship of new herbicide technologies. He received his PhD at North Carolina State University under the direction of Drs. Alan York and David Jordan. In his spare time, Charlie enjoys hunting, fishing, farming, tinkering on his 1962 JD1010 tractor, and spending time with his family.



Student Representative—Sandy Ramsey grew up in Greensboro, North Carolina. During her summers in high school, she found a passion for agriculture while working for an organic poultry operation in Virginia. She graduated from North Carolina State University with a bachelor’s degree in Plant and Soil Science in 2017. While an undergraduate student, she gained experience and knowledge by working at the Center for Environmental Farming Systems and NC State’s Agroecology Education Farm. After graduation, Sandy worked as an apprentice on a diversified vegetable farm in New York and at the Maize Breeding and Genetics Lab at NC State. These opportunities have led her to pursue a Master of Science degree in weed science, working with ecological and biological methods of weed control in row crop systems.



Student Representative—Joshua Joyner is in pursuit of a Master of Science degree in weed science with his research focusing primarily on weed control in cotton. His academic and professional experiences are diverse, with time spent as a research farm agronomist, an employee at his family’s commercial farming operation, and a church choir director. He has obtained bachelor’s degrees in both music performance (2015) and crop production (2018). Joshua’s research passions are fueled by a desire to provide information that has real world implications for North Carolina’s crop producers.



Student Representative—Kira Chaloupka Sims is currently pursuing a PhD in horticulture at NC State with an emphasis on weed science in small fruit production. Her research is focused on weed management options in blueberry, muscadine grape and strawberry production. A native of Alabama, she attended Auburn University earning her undergraduate and master’s degrees in horticulture. She thoroughly enjoys helping others grow in their knowledge and experience in horticulture. When she can find spare time, she reads, and goes camping, hiking, and browses antique stores with her husband.



## Letter from the Student Representative



Levi Moore,

2019-2020 Student Representative

Dear WSSNC members,

It has been my pleasure to serve as your student representative during the past year.

I am working on my Ph.D. in the Horticultural Science Department focusing on biology and management of Palmer amaranth in sweetpotato. Before moving to Raleigh in 2018, I earned a B.S. degree in Agriscience and Environmental Systems from the University of Georgia's Tifton campus. While in school, I worked for Bayer CropScience and Southeast Ag Research as a research assistant. Most of my research experience was in row crops, but I was very interested in the diversity of problems associated with horticultural crop production. This led me to work with Katie Jennings, my advisor. My projects in-

clude 1) evaluating herbicide systems including linuron for Palmer amaranth control in sweetpotato, 2) evaluating herbicide, growth regulator and electrical effects on mature Palmer amaranth seed, 3) screening North Carolina Palmer amaranth populations for herbicide resistance, and 4) optimizing electrical and mechanical control of Palmer amaranth in cucumber, peanut and sweetpotato.

After graduation, I plan to use my weed science experience to evaluate crop protection and improvement technologies in the Southeastern United States. Going forward, I plan to stay very involved in the NC Weed Science Society.

Sincerely,

Levi Moore

### Join us for the 2020 Worsham Lecture Series

**Dr. Robert Nichols**

Senior Director, Agriculture and Environmental Research  
Cotton Incorporated  
Cary, North Carolina

**The Present is the Past in Progress: Are we Making Progress in Weed Management?**

March 19, 2020  
2405 Williams Hall  
Refreshments 2:45 pm  
Seminar 3:00 pm

### Register and Pay Online TODAY for the 2020 Annual Meeting

#### ONLINE REGISTRATION (Complete first)

To register, please go to our website: [www.wssnc.org](http://www.wssnc.org). Click "MEETING" at the top of the page. Please click the appropriate button to start your online registration. If you are paying for multiple registrations, please list all the delegate names in the appropriate boxes. You will have to check the "I'm not a robot" box for spam protection, then click, "Proceed to Confirmation Screen". You will then receive confirmation of your entered information; however, you will still need to pay your registration through PayPal (please see below).

#### ONLINE PAYMENTS

Click on "Pay Now" where you will be redirected to PayPal's payment page. Simply enter your information under "PayPal Guest Checkout" and click "Pay Now". You do not need to setup a PayPal account. You will receive an on-screen and email confirmation of your payment.

## Content... We Need It!

I hope you enjoy this special edition newsletter of the Weed Science society of North Carolina. My hope is to have a bi-annual newsletter in the future, with a fall and spring edition. You can help make this possible by sending me content. Please send newsworthy items, important dates, or any ideas that you would like to see in the newsletter to me, Zachary newsletter editor at [zrtaylor@ncsu.edu](mailto:zrtaylor@ncsu.edu)

Send newsworthy items to

[zrtaylor@ncsu.edu](mailto:zrtaylor@ncsu.edu)

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# Newsletter Editor Report

## Results of 2019 Auxin Training Survey by Zachary Taylor



In my first year as editor of the WSSNC Newsletter, I've been working with Rick Seagroves, previous editor, to get my feet wet in this role. I hope to have a consistent newsletter release date moving forward. Consider this a "special edition." I plan to release a fall and Spring Newsletter from this point forward, and use this opportunity to highlight all of the hard work of our faculty and graduate students, as well as promote happenings in weed science across North Carolina.

As you are likely aware, Dr. Cahoon and Dr. Everman are currently in the midst of the fourth year of required auxin training to growers so that they can meet the 24(c) requirements of using dicamba or 2,4-D over the top of Xtend and Enlist crops, respectively. Surveys have been distributed at training for the past three years, and yours truly has been entering those results. I would like to give you a look back at the results of surveys distributed in the winter of 2019, which provide a quick snapshot of the data we

have been able to collect about the use of this technology in North Carolina so far.

In 2019, there were 771 total responses to the survey, including 663 growers. Grower responses represented about 403,000 acres of soybeans, and 164,000 acres of cotton. According to respondents, 62% of planted soybeans planted were Xtend and 50% of those acres were treated with dicamba. Those who planted cotton, planted 56% of their acres with Xtend traits and applied dicamba on 52% of those acres. Also, 21% of cotton acres were planted in Enlist traits and 67% of those planted acres were treated with 2,4-D.

Of the 663 growers surveyed, 27 reported self-inflicted crop injury, and another 37 reported crop injury from a neighbor. Soybeans accounted for the most injury by acreage across the state, while tobacco injury was most costly to the grower. Soybean growers reported a wide range of losses per acre, which skewed the

average loss per acre, however, the median reported loss was \$30 per acre. Reported tobacco losses due to off-target movement were much more consistent, ranging from \$3,437 to \$5,000 per acre. The average crop lost from off-target movement to a tobacco crop was reported at \$4,359.

Most growers who used dicamba or 2,4-D reported that they followed all label recommendations to avoid off-target drift, including 71% who claimed to have always followed buffer requirements. The least commonly followed label requirement was to check Driftwatch or other online sensitive crop database before spraying.

Growers we asked to estimate the economic benefit of 2,4-D or Dicamba tolerant crops to their farm operation, if they used these products, on a per acre basis. Growers estimated an average benefit of \$36 per acre in soybeans and \$32 per acre in cotton, though several commented that they were unsure at this time or chose to not answer

this question. When asked if they thought the benefits from in-season auxin use in soybeans and cotton were worth the challenges involved, over 88% said yes. Out of 557 soybean growers, 529 said they would plant Xtend soybeans in the 2019 growing season, but over 30% those planning to plant Xtend traits said they did not plan to use any dicamba. Of cotton growers surveyed, 193 of 322 said they planned to plant either Xtend or Enlist cotton, but over 38% said they did not plan to spray an auxin product in 2019.

As for the success of these training sessions, 94% of those who attended had attended previous training felt that training helped them prevent off-target movement.

# Past Newsletter Editions

Check out some of our old newsletters. The document will open in your default browser and you will need Adobe Acrobat Reader to access. Past newsletters are also available on our website, [wssnc.org](http://wssnc.org)



Click [here](#) to send newsworthy items to be included in our newsletter.



# Weed Science Society of North Carolina



## We're on the Web!

[www.wssnc.org](http://www.wssnc.org)

The Weed Science Society of North Carolina was founded to advance the discipline of Weed Science and to improve the well-being of the citizens of the state through a better understanding of weeds and their management.

## Make a note of our address!

All mail correspondence should be mailed to:

**Weed Science Society of NC  
Campus Box 7620  
Raleigh, NC 27695-7620**

## Support the WSSNC Endowment

The Weed Science Society of North Carolina Endowment provides support for Weed Science student activities in the College of Agriculture and Life Sciences at North Carolina State University and other universities in our state.

Our goal is to make more and larger awards as the endowment grows, but **WE NEED YOUR HELP!**

[Contact today to find out how!](#)

## Membership in WSSNC

Membership is open to all individuals interested in weed science and/or weed management.

Active members include those who have paid annual dues.

Supporting members include any individual or firm concerned with the manufacture, distribution or application of weed management materials or devices who contribute financially to the society.

Student members include undergraduate and graduate students interested in weed science.

[Join Today!](#)



# 2019-2020 Board of Directors

## Executive Directors

### President:

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