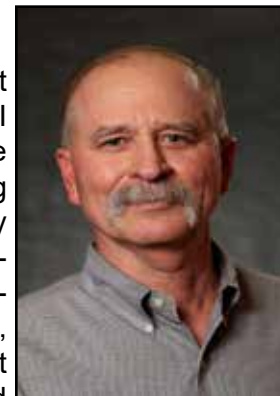




President's Message

Gary Schwarzlose

It seems like this year has gone from 0 to 100 mph in a short amount of time. I know that each of you are busy preparing for this season but I want to share a few thoughts with you. It is indeed an honor and privilege to serve as your SWSS President for 2017 – 2018. As I look at the listing of the Past Presidents I am overwhelmed with the experience and history that each of them has had and are having on our profession and I appreciate the faith and trust that you have placed in me to carry on in this position. I have been involved in this society since 1984 (yes, ancient days, I know). Because of the influence of my committee chair and SWSS Past President, Dr. Morris Merkle, our line of work and this society has played an important role in my life, both on a professional and personal level. It is my goal to continue the tradition of strong leadership that has been set by previous presidents and to continue to grow this society by focusing on the strengths of individual members and our roles within the organization.



2017 Meeting

As I was creating the 2017 program I realized quickly that it was a huge task that was very confusing and most importantly, required assistance. I appreciate all the guidance that was provided by Brad Minton, Peter Dotray, and Phil Banks. I couldn't have done it without their help and support and because of that this year's meeting was another success. Most importantly we didn't have to deal with an ice storm like we did at this location in 2014 and this allowed us to venture out of the hotel and the adjoining mall and to visit more of historic Birmingham. The meeting was well-attended with a final count of approximately 360 attendees. Although there were some occasional snafus on meeting room locations, the hotel was an excellent venue and the staff was on-hand to assist us. Special thanks to Joyce Tredaway and her Local Arrangements Committee: Andrew Price, Wykle Green, Scott McElroy, Steve Li, Jacob Williams, and William Greer for all their hard work behind the scenes.

Meeting topics

There were 276 total presentations that included 118 posters and 158 oral presentations. Our graduate student contest included 72 titles: 37 posters and 35 papers. Contest winners are listed in this newsletter. A symposium was held on "Launching New Technology Systems: Roundup

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2018 Annual Meeting
January 22-24, 2018
Look for more details at:
www.swss.ws

Ready® Xtend Crop System”. Dr. Randy Ratliff presented at the Graduate Student Symposium on how companies use and implicate the Target Selection Interview process, and ways to better prepare graduate students for various interview styles. The SWSS Board of Directors approved the dedication of the 2017 SWSS Proceedings to Dr. Dennis Elmore. Dr. Elmore was a research scientist at Jamie Whitten Delta States Research Center (USDA-ARS) for 32 years. Dr. Elmore’s primary research centered on plant physiology, genetics, and weed and herbicide applications. His research culminated into several published books and field study guides on morning glories and weeds. Dennis was the editor of the Southern Weed Science Society’s Weed Identification Guide. Dr. Elmore was awarded with a lifetime achievement award from our Society.

Shout Outs & Thank You!

- To Session Chairs and Moderators; Hunter Perry, Darrin Dodds, Charles Cahoon, Michael Flessner, Matt Inman, Peter Eure, Drake Copeland, Chase Samples, Garrett Montgomery, Jay McGurdy, Gerald Henry, Paul Tseng, Stephen Enloe, Peter Dittmar, Angela Post, Nilda Burgos, Tom Mueller, Tom Barber, and Dr. John Willis.

- To Hunter Perry and the Student Program Committee for conducting the Graduate Student Oral and Poster Contests. Out of all of the activities that occur during our meeting, this is the most stressful; not only for the graduate students but also for Hunter and his team. This committee stepped up to the plate, accepting the challenge and running the contest without a hitch. In addition, Hunter coordinated the Endowment Fund Golf Tournament which was held on the Sunday prior to the meeting. This event benefits the Endowment fund and this year’s contribution was close to \$10,000. Next year if you have the chance, come out and join us.

- To Tom Mueller for organizing and emceeing the ever popular Quiz Bowl. This event was enjoyed by all and was another opportunity for interaction between our members.

- To Eric Webster who was the Master of Ceremonies for the Awards Banquet. I can tell

you he was definitely the right person for this job. You don’t want me trying to tell jokes.

Finally, I would like to recognize BASF for hosting the evening social following the Quiz Bowl. The SWSS appreciates your support and we know these types of events are what help bring the society together.

As we move into 2017 there are changes within our organization. Departing members from the SWSS Board of Directors are Brad Minton (Past President), Daniel Stephenson (Secretary-Treasurer), Nilda Burgos (Editor), Joyce Tredaway (Member at Large - Academia), James Holloway (Member at Large - Industry), Eric Palmer (Representative to WSSA), and Drake Copeland (Graduate Student Representative). The SWSS and I would like to express our sincere appreciation for your service, dedication, and contributions to our society. I would like to extend a “Welcome” to the new members joining the SWSS Board of Directors: James Holloway (Vice President), Jim Brosnan (Secretary-Treasurer), Muthu Bagavathiannan (Editor), Jason Bond (Member at Large - Academia), Greg Stapleton (Member at Large - Industry), John Byrd (Representative to WSSA), Tara Steinke (SWSS Business Manager), and John Brewer (Graduate Student Representative). Welcome to the Board!

Upcoming Events

There are upcoming events which will be discussed in further detail in this and future newsletters. Soon there will be a “Call for Awards” nominations. There are many deserving individuals who are never recognized because they are not nominated for an award. Don’t be timid. I want you to begin considering who you might nominate and be prepared to submit. The process is simple and pain-free and is greatly appreciated by those who are nominated.

The SWSS Weed Contest will be held August 1 – 2, 2017 in Vero Beach, FL. and will be hosted by Syngenta Crop Protection, Inc. This event is action packed and your help is needed. Please volunteer your time if you can.

2018 Meeting

Bob Scott, President Elect and Program

Chair, is working hard developing the program for the 2018 meeting. He has already been identifying Section Chairs and has 3 possible symposium proposals. Bob is stressing over every detail but I have full confidence that this year's meeting will have his handiwork written all over it. The Local Arrangements Chair will be Henry McLean and he is beginning to assemble his team. This is an excellent opportunity for you to be involved and help. Volunteer your services. I know that both Bob and Henry will appreciate it.

Adios and Welcome

As many of you know Phil Banks has decided to leave the hustle and bustle of being the SWSS Business Manager following the 2017 SWSS Annual Meeting. He has held this position since January 2010 and has had a positive effect on our organization; not only in how he has helped all of us but more importantly in how he has transformed our organization. You should know that the SWSS could not have functioned efficiently if it weren't for Phil. He will be missed in this position but he will still be an active SWSS member. If you haven't had the time to tell him "Thank You" for all he has

done for our organization, take a minute and give him a call or send him an email or text and let him know.

With Phil's decision to leave came the decision that we needed a replacement. After a lengthy and difficult interview process we have selected Interactive Management Inc. (IMI) as our new Business Manager. Please welcome Tara Steinke who will be serving for IMI as our new Business Manager. I know that Tara will do a fantastic job and we look forward to working with her and IMI. Included in this newsletter is a bio on Tara.

I want to thank you again for allowing me to serve as your president and I look forward to the challenges that this office will bring and to working with each of you. The SWSS is an outstanding organization with a rich history and promising and productive future. Please let me know if you have any ideas, questions, comments, or suggestions that will help our society. Here's to hoping you have a great 2017 season. Stay safe and take care.



Herbicide Symptomology Database

A new data base has been added to the University of Arkansas Extension web site at <https://plants.uaex.edu/herbicide/default.aspx> the "Herbicide Injury Database" is a searchable collection of over 1000 photos which illustrate the effects of various herbicides on plants. This data base was a collaborative effort between Dr. Cal Shumway of Arkansas State University and Drs. Bob Scott and John Boyd with the University of Arkansas, Division of Agriculture. The photos mostly came from a collection that has been obtained after almost 20 years of work done annually to provide training plots for the inspectors of the Arkansas

State Plant Board as well as County Agents and other interested parties. The database will be updated periodically with new plants as well as new herbicides as they are introduced. The pictures are available for download and use free of charge, however the author's (Bob Scott, Calvin Shumway and John Boyd) do request that the site be acknowledged as the source of the pictures. In addition, other resources such as a symptomology handbook and searchable pdf files can also be obtained at the site.



Photo of glyphosate damage to wheat taken from the web database.

2017 Award Winners

2017 Outstanding Educator Award

Jason Norsworthy

Jason Norsworthy grew up on a vegetable farm in southern Arkansas, where he quickly learned the need for weed management in crops. He completed his B.S. in Plant Sciences – Agronomy from Louisiana Tech University in 1995 and then his M.S. in Plant Sciences – Weed Science at the University of Arkansas in 1997. After completing his Ph.D. in Plant Sciences – Weed Science in 2000 from the University of Arkansas, he spent six years on the faculty at Clemson University. He returned to the University of Arkansas in 2006 and currently holds the academic rank of Professor with tenure in the Crop, Soil, and Environmental Sciences Department, and holds the University of Arkansas' endowed Chair of Weed Science.



Dr. Norsworthy teaches Principles of Weed Control and team teaches Integrated Pest Management, Advanced Crop Science, and Weed Science Practicum. He has directed 9 M.S. degrees, 4 Ph.D. degrees, 6 Postdoctoral Associates, and has served on several graduate student committees. Dr. Norsworthy is currently advising 12 M.S. students, 3 Ph.D. students, and 4 Postdoctoral Associates. Jason has authored or co-authored over 180 refereed journal publications and over 600 abstracts.

Much of Dr. Norsworthy's time is dedicated to conducting research centered on developing strategies to manage herbicide-resistant weeds and reducing the risk of herbicide resistance. Dr. Norsworthy has documented eight new herbicide-resistant weeds in Arkansas. Dr. Norsworthy frequently travels across the U.S. speaking on the resistance issues confronted by growers throughout the South and elaborates on the strategies that can be used to reduce the risk of herbicide-resistant weeds evolving. Dr. Norsworthy has led an international team of scientists in preparing a position paper for the Weed Science Society of America outlining best management practices to mitigate the evolution of herbicide resistance. Jason was awarded the Southern Weed Science Societies Outstanding Young Weed Scientist award in 2009, and he received the Early Career Weed Scientist award from the Weed Science Society of America in 2010. In 2011, the University

of Arkansas awarded Dr. Norsworthy and three other weed scientists the John White Team Award for their efforts in education and promotion of herbicide resistance issues relevant to the midsouthern U.S. The Arkansas Association of Cooperative Extension Specialists recognized Dr. Norsworthy as Researcher of the Year in 2011 and he was presented the Outstanding Researcher Award by the Arkansas Chapter of Gamma Sigma Delta in 2015. Dr. Norsworthy provided a keynote address at the International Herbicide Resistance Challenge Conference and the subsequent Australian Weed Congress that met in Perth, Australia in February 2013. Dr. Norsworthy presently serves as Editor-in-Chief for Weed Technology.

2017 Outstanding Young Weed Scientist-Academia

Wes Everman

Dr. Wesley Everman (Purdue '00, '02; NC State '08) is currently an Assistant Professor and Extension Weed Specialist at the North Carolina State University. He has authored or co-authored 45 published manuscripts, 291 abstracts at professional meetings, 29 invited presentations, and 66 extension publications.



One of the greatest contributions Dr. Everman has made so far is from the North Carolina Feed Grains Initiative. As project director, Dr. Everman coordinated a team that conducted research and extension activities to increase feed grain production in North Carolina. This project nearly doubled feed grain production, reduced expenses, and increased farm revenue. Industry estimates of \$333,000,000 in increased revenue to the state as well as \$95,000,000 in reduced operating expenses to Murphy Brown farms have been calculated for this project. In addition, Dr. Everman has been PI or co-PI on over \$8,000,000 in awarded grant funding, with \$6,000,000 of that awarded since January 2014.

In addition to the contributions above, Dr. Everman has directed 6 completed or ongoing Ph.D. projects and 10 M.S. projects. He also has received outstanding classroom teaching evaluations and has a very active extension program to deliver his research results to growers.

2017 Outstanding Young Weed Scientist-Industry



Hunter Perry

Hunter earned his B.S. and M.S. from Mississippi State University in Golf and Sports Turf Management and Plant Pathology in 2005 and 2007, respectively. He earned his Ph.D. in Weed Science from Auburn University in 2011, before joining Dow AgroSciences. Hunter is

currently the Field Station Manager at Dow AgroSciences' Southern Research Center near Greenville, MS. His primary responsibilities include not only field station operations and personnel management, but research responsibilities including early-stage product and trait characterization and product concept investigation. In his previous role, Hunter served as the weed scientist and plant pathologist for the Southern Research Center.

Since joining the SWSS, Hunter has served as Chair and Vice Chair of the graduate student paper and poster contests multiple times. He was elected as an Endowment Trustee in 2015 where he works alongside others to ensure the Endowment accomplishes educational objectives. Hunter has been instrumental in raising money for the Endowment by organizing the SWSS Annual Golf Tournament from 2014-2017 which raised more than \$30,000 to benefit the Endowment. Hunter regularly moderates paper sessions, volunteers for the annual weed contest and serves on several committees. He has published in plant pathology and weed science peer-reviewed journals and remains an active reviewer. Hunter is married to Audra Perry and they reside in Leland, MS.

2017 Outstanding Graduate Student Award (PhD)

Misha Manuchehri



Dr. Misha Manuchehri joined the faculty of Oklahoma State University in July 2016 as the new Wheat Extension Weed Specialist. She is in the Department of Plant and Soil Sciences. Dr. Manuchehri recently completed her Ph.D. at Texas Tech University with

Dr. Peter Dotray. Her responsibilities in Oklahoma are split, with the majority of her assignment being a Wheat Extension Specialist. She also works with canola as a rotational crop and teaches the junior level weed science course. Misha is a native of Washington State where she earned her B.S. and M.S. degrees with Dr. Ian Burke.

2017 Outstanding Graduate Student Award (MS)

John Buol



John Buol graduated from the University of Wisconsin-Madison with a B.S. in Biochemistry in December 2014. As an undergraduate, John conducted research on RNAi inheritance in nematodes and authored an article in a Wisconsin research series characterizing

the spread of glyphosate-resistant horseweed. His Master's thesis under the direction of Dr. Dan Reynolds at Mississippi State University evaluates the effect of cotton growth stage on susceptibility to injury and yield effects from sub-lethal concentrations of 2,4-D and dicamba. During his time as a Master's student, John serves as teaching assistant for Dr. Reynold's Herbicide Technology course, and was a member of the 3rd place team at the 2016 SWSS Weed Contest. John's achievements have been recognized with awards such as the Will Carpenter Distinguished Field Scientist Monsanto Fellowship, induction into the Gamma Sigma Delta National Agriculture Honors Society, and the 2016 Future Leaders in Science Award at the Congressional Visits Days in Washington, D.C., where he met with Congressional leaders to advocate for the importance of agricultural research funding. John placed 2nd in both the oral and poster contests at the 2016 SWSS Annual Meeting, has placed first in local competitions including the MSU Future of Ag Competition, the MSU Graduate Student Research Symposium, and the MSU Three-Minute Thesis Competition; and has received awards for various other presentations. John has presented several MSU Extension talks and has authored 10 abstracts for professional meetings. He will continue working under the direction of Dr. Dan Reynolds at Mississippi State University, where his PhD research will investigate probabilistic models for gene flow in weed populations.

2017 Excellence in Regulatory Stewardship Award

A. Stanley Culpepper



Stanley Culpepper is a Professor in the Crop and Soil Science Department at The University of Georgia. A native of North Carolina, he grew up on a bicentennial family farm producing cotton, peanut, soybean, and wheat. He received his BS in Agronomy from N. C. State University. His MS and PhD were also obtained at N. C. State in weed science under the direction of Dr. Alan York. Stanley began his professional career at The University of Georgia as a cotton, vegetable, and small grain weed scientist in 1999, and continues with those same responsibilities today. Stanley's ultimate goal is to assist family farms with long-term sustainability by helping growers make wise production decisions using information generated from unbiased research.

Because of Stanley's efforts, he has been an invited speaker at 261 functions across 24 states and several countries. In Georgia, he has presented timely information to growers at 546 county meetings and 115 field days while also training extension agents during 103 in-service meetings. He has authored or co-authored 92 refereed journal articles, 4 book chapters, 353 abstracts for presentations at professional meetings, 211 extension publications and 171 newsletters/blogs. Additionally, Stanley has authored 16 successful Section 18 packages and critical use nomination packages as well as co-authoring 33 Section 24(c) state herbicide labels bringing new weed management tools to Georgia growers. His greatest award accomplishments were winning the EPA's Montreal Protocol International Award for assisting in the preservation of the ozone layer and receiving the Southern Region Excellence in Extension Award provided by the Extension Committee on Organization and Policy and the USDA National

Institute of Food and Agriculture. Stanley's greatest professional honor was being invited to serve as a member of the Agricultural Science Committee of the U.S. Environmental Protection Agency's Science Advisory Board.

Institute of Food and Agriculture. Stanley's greatest professional honor was being invited to serve as a member of the Agricultural Science Committee of the U.S. Environmental Protection Agency's Science Advisory Board.

2017 Fellow Award

James Holloway



James grew up in the Mississippi Delta and was involved in some aspect of agriculture all of his life. James received his BS in Weed Science from Mississippi State University in 1989, his Master's Degree in Weed Science under Dr. Wayne Cole in 1992 and his Ph.D. under the direction of Dr. David Shaw in 1995. James received an offer to work for Ciba Crop Protection at their Winter-

ville, MS farm and started work with them on April 3rd, 1995. In 1997, following a merger with Sandoz, Novartis was born and James worked with them, as Station weed scientist, Field Rep for MS and LA, as well as interim station manager, until the merger with Zeneca, at which time Syngenta Crop Protection was born. James worked in MS as a field rep for Syngenta until December 2003, at which time he was moved to Jackson, TN to take on the responsibility of Field Rep for TN and the Boot Heel of MO. James was promoted to Senior Field Biology Expert in 2016 and continues to work the same geography. James has been a member of the Southern Weed Science Society since 1989. James has served the Society as a graduate student contest judge, has hosted the Southern Weed Contest in 1999, and assisted with multiple other contests. James currently serves as the President of Endowment committee and he is also a member of the Weed Science Society of America and TAPA as well as being a previous member and board member of the Mississippi Weed Science Society.

Photos from the 2017 SWSS meeting

Photos from the SWSS meeting are available on Google Drive at the following link: <https://drive.google.com/drive/folders/0B21lpA2dqcdYalpJZ3FHVk5mVXc?usp=sharing>. The photos are organized by event. To download the full size file (1200 pixels on long edge) you click on the down arrow beside the preview image. You may want to share the link so people can find and download images they want. You can download a whole directory as a zip file, to save time and bandwidth. Many thanks to Joe Omielan for sharing these photos with all the SWSS members. You can see a few on the next page

Moments from the Meeting...



Graduate Student Awards

Masters poster Section 1

1st – Matthew Moore
2nd – Savanna Davis

Masters paper section 1

1st – John Godwin
2nd – Mason Young

Masters poster section 2

1st – Zachary Lancaster
2nd – Nicholas Steppig

Masters paper section 2

1st – O.W. Carter
2nd – John Buol

Masters poster section 3

1st – Ranjeet Randhawa
2nd – Russ Garetson

Ph.D. paper section 1

1st – Ethan Parker
2nd – Chris Meyer

Ph.D. poster section 1

1st – Michael Plumblee
2nd – Matthew Inman

Ph.D. paper section 2

1st – Cody Lastinger
2nd – Matthew Bertucci

2017 Award Winners Named by Weed Science Society of America

The Weed Science Society of America (WSSA) this week honored more than two dozen individuals for their outstanding contributions to the field of weed science. The awards were presented during the organization's annual meeting, held this year in Tucson, Arizona.

"We are proud to honor true innovators who are making a significant mark on weed science through their commitment to research, education and teaching" said Janis McFarland, Ph.D., 2017 annual meeting program chair and incoming president of WSSA.

This year's winners include:

- Fellow Awards (WSSA's Highest Recognition): Nilda Burgos, Ph.D., University of Arkansas, and Richard Zollinger, Ph.D., North Dakota State University
- Outstanding Extension Award: Mark J. VanGessel, Ph.D., University of Delaware
- Outstanding Research Award: Joe DiTomaso, Ph.D., University of California, Davis
- Outstanding Graduate Student Award: Matthew Jefries, Ph.D. candidate, North Carolina State University
- Outstanding Paper Award, Invasive Plant Science and Management: Influence of Intensity and Duration of Invasion by Amur Honeysuckle (*Lonicera Maackii*) on Mixed Hardwood Forests of Indiana, Joshua Shields, Ph.D., Manistee and Mason-Lake Conservation Districts, corresponding author
- Outstanding Paper Award, Invasive Plant Science and Management: Plastid DNA Analysis Reveals Cryptic Hybridization in Invasive Dalmatian Toadflax (*Linaria dalmatica*) Populations, Sarah Ward, Ph.D., Colorado State University, corresponding author
- Outstanding Paper Award, Weed Science: Field Application of Glyphosate Induces Molecular Changes Affecting Vegetative Growth Processes in Leafy Spurge (*Euphorbia esula*), Manevver Doayramaca, Ph.D., USDA-Ag. Research Service, corresponding author
- Outstanding Paper Award, Weed Technology: Evaluating Cover Crops and Herbicides for Glyphosate Resistant Palmer Amaranth (*Amaranthus palmeri*) Control in Cotton, Lawrence Steckel, Ph.D., University of Tennessee
- Outstanding Early Career Weed Scientist: Amit Jhala, Ph.D., University of Nebraska-Lincoln
- Outstanding Industry Award: Arlene Cotie, Bayer
- Outstanding Reviewer Awards: Albert Ayeni, Ph.D., Rutgers, the State University of New Jersey, and Aman Chandie, Ph.D., DuPont
- Public Service Award: Michael Barrett, Ph.D., University of Kentucky

Notes from the Business Manager

Tara Steinke



Spring is here and we at Interactive Management Inc. (IMI) are excited about serving the members of the SWSS! My name is Tara Steinke and I am the new Business Manager for the SWSS. I had the pleasure of meeting many of you at the 2017 Annual Meeting in

Birmingham. I work for IMI and our main office is in Westminster, CO. If there is anything we can do to assist you please let myself or one of the staff know. Our office hours are M-F, 8:00 am – 5:00 pm MST, the phone number to get ahold of us is (303) 327-8016 and the email is info@swss.ws.

Here is a little bit about me: I grew up in rural Eastern Colorado where my family ran a fertilizer and agriculture chemical application business. I attended Colorado State University majoring in Soil and Crop Science. I worked with Dr. Sandra McDonald in the Pesticide Education Program at CSU for 8 years. My family currently resides in Eaton, Colorado (east of Fort Collins). Any free time is spent on 4-H projects including cattle, pigs, ducks and turkeys for our 11 and 12 year old boys. I am very excited to be a part of the SWSS and continue the great work that Phil has done.

If you have changed jobs, have a different address or different email address, please log onto

your profile on the website (<http://www.swss.ws/membership-information/member-login/>) and update your information. If you have any issues logging on please do not hesitate to give us a call.

Mark your calendars for the Student Weed Contest on August 1-2, 2017 and for the Annual Meeting in Atlanta, GA, January 22 – 24, 2018.

I will leave you with this: Get involved, and encourage others to get involved in SWSS!

“As a business model and a core value, membership is perhaps the defining quality of nonprofit trade associations and professional societies. And it's more than just a bundle of benefits. To join an association is to become a member of a community, a place to belong, where like-minded people share knowledge and work together toward goals they couldn't achieve alone. The ASAE study The Decision to Join found that the human desire for belonging remains strong, and members join associations equally motivated to improve themselves and their industries or communities.” (<https://www.asaecenter.org/resources/topics/membership>)

If you would like to become more involved in the SWSS, a great way to do this is to join a committee. Contact SWSS President Gary Schwarzlose, gary.schwarzlose@bayer.com to get more information.



Endowment Committee Report

Brent Selers

Six applications were received for the Endowment Enrichment Scholarship. All applicants were very much deserving of the Scholarship, but unfortunately, only 3 can win. The winners for the 2017 Endowment Enrichment Scholarship are:

Shawn Beam – Va Tech 1st
John Brewer – Va Tech 2nd
Matthew Bertucci – NCSU 3rd

Each student winner has selected three potential hosts for their experience this summer. They will be contacting them shortly to arrange for their one week experience.

A special thanks to all the graduate students who put in an application as well as a special thanks to all the hosts that volunteer to spend a week with our winners. I encourage all graduate students to seriously consider putting in an application for the 2018 Endowment Enrichment Scholarship Experience. This is an excellent opportunity for students to interact with individuals outside their normal job description. If you missed your chance to put in an application, I encourage you to set yourself a reminder for the 2018 calendar year. Even though the deadline for the 2018 applications have not been set as of yet, it will be sometime around the first week of April in 2018.

Congratulations to the SWSS Endowment Enrichment Scholarship winners! We look forward to hearing about your experience at the 2018 annual meeting in Atlanta.

**Directory of Officers, Executive Board Members, Committees
and Committee Members
January 31, 2017 - January 31, 2018**

Note: Duties of each Committee are detailed in the Manual of Operating Procedures, which is posted on the SWSS web site at <http://www.swss.ws>

100. SOUTHERN WEED SCIENCE SOCIETY OFFICERS AND EXECUTIVE BOARD

100a. OFFICERS

President	Gary Schwarzlose	2018
President Elect	Bob Scott	2019
Vice-President	James Holloway	2020
Secretary-Treasurer	Jim Brosnan	2020
Editor	Muthu Bagavathiannan	2020
Immediate Past President	Peter Dotray	2018

100b. ADDITIONAL EXECUTIVE BOARD MEMBERS

Member-at-Large - Academia	Angela Post	2018
Member-at-Large - Academia	Jason Bond	2019
Member-at-Large- Industry	Matt Goddard	2018
Member-at-Large - Industry	Greg Stapleton	2019
Representative to WSSA	John Byrd	2019

100c. EX-OFFICIO BOARD MEMBERS

Constitution and Operating Procedures	Carroll Johnson	2019
SWSS Business Manager	Tara Steinke	
Student Representative	John Brewer	2018
Web Master	David Kruger	
Newsletter Editor	Bob Scott	

101. SWSS ENDOWMENT FOUNDATION

101a. BOARD OF TRUSTEES - ELECTED

President	Brent Sellers	2018
Secretary	Darrin Dodds	2019
	Donnie Miller	2020
	Hunter Perry	2021
	Gary Schwarzlose	2022
Graduate Student Rep	Zachary Lancaster	2018

101b. BOARD OF TRUSTEES - EX-OFFICIO

James Holloway	Past President of Endowment Foundation Board of Trustees
Tara Steinke	SWSS Business Manager

102. AWARDS COMMITTEE PARENT (STANDING) - The Parent Awards Committee shall consist of the immediate Past President as Chairperson and each Chair of the Award Subcommittees.

Peter Dotray*	2018	Robert Nichols	2018	Tim Grey	2018
Bob Hayes	2018	Wayne Keeling	2018	David Shaw	2019

The Awards Subcommittees shall consist of six members including the Chair, serving staggered three-year terms with two rotating off each year.

102a. SWSS Fellow Award Subcommittee

John Byrd	2018	Doug Worsham	2019	Barry Brecke	2020
Robert Nichols *	2018	Ken Smith	2019	Renee Keese	2020

102b. Outstanding Educator Award Subcommittee

Tim Grey *	2018	Jim Brosnan	2019	Jason Norsworthy	2020
Greg MacDonald	2018	Charlie Cahoon	2019	Tom Mueller	2020

102c. Outstanding Young Weed Scientist Award Subcommittee

Eric Prostko	2018	Jay Ferrell	2019	Drew Ellis	2020
Bob Hayes *	2018	Todd Baughman	2019	Daniel Stephenson	2020

102d. Outstanding Graduate Student Award Subcommittee

Wayne Keeling *	2018	Matt Goddard	2019	Stanley Culpepper	2020
David Jordan	2018	Joyce Tredaway	2019	Jay McCurdy	2020

102e. Excellence in Regulatory Stewardship Award Subcommittee

David Shaw *	2019	J. D. Green	2020	David Jordan	2021
Matt Goddard	2019	Larry Walton	2020		

103. COMPUTER APPLICATION COMMITTEE (STANDING)

Shawn Askew *	2020
Dan Reynolds *	2020

104. CONSTITUTION AND OPERATING PROCEDURES COMMITTEE (STANDING)

W. Carroll Johnson *	2019
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105. FINANCE COMMITTEE (STANDING) - Shall consist of the Vice President as Chair and President-Elect, Secretary-Treasurer, Chair of Sustaining Membership Committee, and others as the President so chooses, with the Editor serving as ex-officio member.

James Holloway *	2019
Bob Scott	2018
Jim Brosnan	2020
John Richburg	2018
Muthu Bagavathiannan	2020
Tara Steinke – SWSS Business Manager	
Phil Banks	2020

106. GRADUATE STUDENT ORGANIZATION

President	John Brewer	Virginia Tech
Vice President	Zachary Lancaster	Arkansas
Secretary	John Buol	MS. State
Weed Resistance & Technology Committee Rep	Savana Davis	MS. State
Student Program Committee Rep.	Brad Wilson	MS. State
Endowment Committee Rep.	Zachary Lancaster	Arkansas

107. WEED RESISTANCE AND TECHNOLOGY STEWARDSHIP (STANDING)

Alabama	J. Tredaway		North Carolina	D. Spak
Arkansas	N. French J. Norsworthy		Oklahoma	T. Baughman
Florida	R. Leon		South Carolina	
Georgia	E. Prostko C. Johnson		Tennessee	J. Holloway L. Steckel A. Mills
Kentucky			Texas	P. Dotray
Louisiana	D. Stephenson		Virginia	
Mississippi	H. Perry ** F. Carey * J. Bond		Commonwealth of Puerto Rico	
Missouri	M. Horak A. Kendig		Student Representative	Savana Davis

108. HISTORICAL COMMITTEE (STANDING)

John Byrd *	2018
Andy Kendig	2019

109. LEGISLATIVE AND REGULATORY COMMITTEE (STANDING)

Angela Post *	Chair & Member-at-Large - Academia	2020
Lee Van Wychen	(ad hoc) WSSA Science Policy Director	2018
Donn Shilling	(ad hoc) Chair of the WSSA Science Policy Committee	2018
Mike Barrett	(ad hoc), EPA liaison	2018
Jason Bond	Member-at-Large - Academia	2019
Matt Goddard	Member-at-Large - Industry	2018
Greg Stapleton	Member-at-Large - Industry	2019
Peter Dotray	Past President	2018

110. LOCAL ARRANGEMENTS COMMITTEE - (STANDING)

Henry McLean *	2018	Atlanta (SE)
Todd Baughman	2019	Oklahoma City (SW)

111. LONG-RANGE PLANNING COMMITTEE (STANDING) –
Shall consist of the Past-Past President (chair), Past-President, President, and President-Elect.

Brad Minton *	2018
Peter Dotray	2019
Gary Schwarzlose	2020
Bob Scott	2021

112. MEETING SITE SELECTION COMMITTEE (STANDING) - Shall consist of six members and the SWSS Business Manager. The members will be appointed by the President on a rotating basis with one member appointed each year and members shall serve six-year terms. The Chairmanship will rotate to the senior committee member from the geographical area where the meeting will be held.

Tim Grey (SE) *	2018	Eric Webster (SW)	2019	James Holloway (MS)	2020
Angela Post (SE)	2021	Luke Etheredge (SW)	2022	Andrew Price (MS)	2023
Tara Steinke – SWSS Business Manager					

113. NOMINATING COMMITTEE (STANDING) - Shall be composed of the Past President as Chair.

Peter Dotray *	2018
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114. PROGRAM COMMITTEE - 2018 MEETING (STANDING)

Bob Scott *	2018
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115. PROGRAM COMMITTEE - 2019 MEETING (STANDING)

James Holloway *	2019
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116. RESEARCH COMMITTEE (STANDING)

James Holloway *	2018		
Alabama	J. Tredaway	North Carolina	W. Everman
Arkansas	N. Burgos	Oklahoma	T. Baughman
Florida	R. Leon	South Carolina	M. Marshall
Georgia	E. Prostko	Tennessee	L. Steckel
Kentucky		Texas	P. Dotray
Louisiana	D. Miller	Virginia	S. Askew
Mississippi	J. Byrd	Commonwealth of Puerto Rico	
Missouri	K. Bradley		

117. RESOLUTIONS AND NECROLOGY COMMITTEE (STANDING)

David Black *	2018	Michael Flessner	2019	Ryan Edwards	2020
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118. SOUTHERN WEED CONTEST COMMITTEE (STANDING) open to all SWSS members

Mississippi	D. Dodd **	North Carolina	W. Everman
Alabama	J. Tredaway	Missouri	
Arkansas	N. Burgos	Oklahoma	T. Baughman
Florida	G. MacDonald	South Carolina	
Georgia	W. Vencill	Tennessee	T. Mueller D. Ellis *
Kentucky		Texas	P. Dotray
Louisiana	E. Webster	Virginia	S. Askew
Mississippi	D. Reynolds	Commonwealth of Puerto Rico	

119. STUDENT PROGRAM COMMITTEE (STANDING)

Darrin Dodds *	2018	
Brad Wilson	2018	Graduate Student Organization Rep. – Ex-officio member
Charlie Cahoon	2019	

120. SUSTAINING MEMBERSHIP COMMITTEE (STANDING)

John Richburg *	2018	Larry Steckel	2018	Peter Eure	2019
Jacob Reed	2019	Kelly Barnett	2020	Tom Barber	2020

121. CONTINUING EDUCATION UNITS COMMITTEE (SPECIAL)

AL - Steve Li	2018	NC - Bobby Walls	2018
AR - Tom Barber	2018	NC - Katie Jennings	2018
FL - Calvin Odero	2018	OK - Todd Baughman	2018
GA - Scott Tubbs	2018	SC - Alan Estes *	2018
KY - Mike Harrell	2018	TN - Drew Ellis	2018
LA - Jeff Ellis	2018	TX - Jacob Reed	2018
MS -Te-Ming Paul Tseng	2018	VA - Charlie Cahoon	2018

122. MEMBERSHIP COMMITTEE (SPECIAL)



July 17-20, 2018
Registration is now open
Knoxville, TN

Courtyard Marriott
Knoxville West/Bearden
250 Brookview Center Way
Knoxville, TN 37919
865-690-7680

More info contact us:
Tom Mueller, Coordinator
Phone 865-974-8805
tmueller@utk.edu

Tennessee Weed Science Society
P.O. Box 53141
Knoxville, TN 37950
www.tnwss.org

Tennessee Weed Science Short Course

Do you need a concentrated, focused short course to refresh your knowledge of herbicides modes of action and herbicide resistance? This is the course for you!!

What is included in the course?

1. >26 hours of instruction, hands-on demonstrations and field trips.
2. All students receive a comprehensive workbook detailing course content.

How much does the course cost?

- Course fee is \$1000 per person.
- Course materials and handouts included with registration.

Yes, I want to attend the 2017 TN Weeds Short Course

Name _____

Company/Affiliation _____

Mailing Address:

City _____ State _____ Zip _____

Phone _____

Email _____

(Pre-register until March 1, 2017.) Class limited to 40 students.

Speakers Include:

Steve Duke, USDA-ARS, PhD, Duke University; Published >400 peer-reviewed articles (as well as numerous books) on herbicide mode of action, allelopathy, herbicide-resistant crops, and non-weed pest management. He is currently the Editor-in-Chief of Pest Management Science.

Patrick J. Tranel, University of Illinois, PhD, Michigan State University; Professor with expertise in herbicide resistance and weed molecular biology, genetic, and genomics.

Peter Sikkema, University of Guelph, PhD, University of Western Ontario; Peter conducts research on weed management in corn, soybean, cereals and edible beans. Peter has published more than 250 peer-reviewed manuscripts and was author/co-author of more than 250 presentations at scientific conferences.

Dale L. Shaner, PhD, University of Illinois; Weed science researcher for 36 years at University of California, Riverside, American Cyanamid/ BASF and USDA-ARS. Expertise in herbicide mechanism of action, herbicide resistance and herbicide-soil-plant interactions.

Todd A. Gaines, Colorado State University, PhD, Colorado State University, Assistant Professor; Areas of emphasis include molecular biology and genetics of herbicide resistance, and developing novel traits in crops through mutagenesis.

Thomas C Mueller, University of Tennessee, PhD, University of Georgia (pictured with his wife Sara) coordinates the class and teaches several lectures. His area of expertise is environmental fate of herbicides.

SWSS WEED CONTEST

August 1 – 2, 2017

Syngenta Research Farm – Vero Beach. FL

The link for the 2017 Weed Contest Rules:

https://www.swss.ws/wp-content/uploads/2017-SWSS-Weed-Contest-Rules_Final.pdf

The link and the deadlines can be found on the bottom of the front page of the SWSS website at swss.ws.

All teams must enter the contest by May 1, 2017. Names of team members and alternates must be provided by July 1, 2017. Primary contact to submit teams: Darrin Dodds, dmd76@pss.msstate.edu.

Primary contact for Syngenta: Cheryl Dunne – Cheryl.dunne@syngenta.com.

We are looking forward to another great contest this summer!

Rooms have been blocked for the Summer Weed Contest for students and coaches at the hotels listed below. Reservations can be made using the attached links and rates will be effective until June 1.

Option 1.

SpringHill Suites by Marriott - Vero Beach
5115 Indian River Blvd.
Vero Beach, FL 32967
772-978-9292

Rate: \$119 per night – includes breakfast

*rates EXPIRE on 6/1/2017

Link for reservations: <http://cwp.marriott.com/mlbvb/swssweedcontest>

Option 2.

Hampton Inn & Suites by Hilton – Vero Beach Downtown
611 20th Place
Vero Beach, FL 32960
Phone: 772-774-4010

Rate: \$109 per night - includes breakfast

*rates EXPIRE on 6/1/2017

Link for Reservations: www.verobeachdowntownsuites.hamptoninn.com group code is SWS



SWSS WEED CONTEST
Syngenta Research Farm – Vero Beach. FL
Primary contact: Cheryl Dunne – Cheryl.dunne@syngenta.com
August 1 – 2, 2017

RULES, REGULATIONS, AND GUIDELINES

Purpose

The purpose of the Southern Weed Contest is to provide an educational experience from which undergraduate and graduate students in Southern Universities can broaden their applied skills in Weed Science. The contest provides an opportunity for Weed Science students to be exposed to weed scientists from other universities and industry, apply what they have learned using a contest to enhance their capabilities, as well as to socialize. It is hopeful that the contest will increase the visibility of Weed Science and intensify the interest level of those participating in the discipline of Weed Science.

Eligibility

Any undergraduate or graduate student currently enrolled and pursuing a B.S., M.S., or Ph.D. degree is eligible to participate. Each graduate team will consist of three or four members, composed of (a) graduate, (b) undergraduate, or (c) a combination of graduate and undergraduate students. If undergraduates are part of a graduate team, those students are subject to the same guidelines as the graduate students. If a university does not have sufficient students for a team, up to two students may enter as individuals. Universities are allowed to enter multiple teams. All students will compete using the same contest material. A team may also bring three alternates.

Alternate scores will only count toward individual awards. Team scores will be determined from averaging the individual scores from each team member; unless a three-person team is entered. Then the three highest individuals will be averaged. A maximum of two coaches per team can attend the contest. Students will be allowed to participate in the contest five times as a team member or alternate; however, the student can only participate as a team member three times. Undergraduate participation will not count against the five-time rule. **All teams must enter the contest by May 1, 2017.** Names of team members and alternates must be provided by July 1, 2017. Primary contact: **Darrin Dodds, dmd76@pss.msstate.edu**

Awards

TEAM-The highest average team score from all events will determine the overall contest winner. A traveling "**Broken Hoe**" trophy will be presented to the overall winner and will rotate yearly. The first place team will receive a check for \$500 and each member and coach will receive an engraved plaque. The second and third place teams will receive checks of \$300 and \$200, respectively. Each will also receive an engraved plaque as described above.

INDIVIDUAL-The highest combined score from all events, except team sprayer calibration, will determine the overall-winning individual. The top 10 individuals will be recognized and awarded a plaque. The winning individual will receive a check for \$400. Individuals finishing second, third, fourth, and fifth will receive checks from \$250, \$100, \$75, and \$50, respectively. The high individual in Weed Identification, Crop Response to Herbicides, Sprayer Calibration Problem Set, and Crop/Weed Situation and Recommendations will be recognized and awarded a plaque. If at least four undergraduate students participate in the contest, the top three individual scores will be recognized with first, second, and third place plaques and checks for \$200, \$100, and \$50, respectively.

Events

The contest will consist of four major events plus a mystery event. Inclement weather may delay the contest; however, it will continue as soon as conditions permit.

While contestants are briefed on contest details during breakfast, coaches will be taken to the contest site to review all aspects of the contest. Coaches will review the six phases of the contest: weed identification, herbicide identification, sprayer and written calibration, field problem solving, and mystery event. The coaches will then be taken to a neutral site for breakfast. No contact, electronic or otherwise, with contestants will be allowed until all events have been completed. A committee meeting will also be conducted, if needed, either the day before the contest or on the day of the contest.

1. **Weed Identification** (100 points)

From the contest weed identification list of 100 weeds and weed seeds/tubers, the host will pick a total of 50 weeds and/or weed seeds to be identified. Plants will be grown in a field weed nursery or pots and may be in any stage of growth or development within reason. A complete weed identification list is provided with the correct spelling of each species (Table 1). Students will be responsible for the correct WSSA common and scientific name and spelling (Weed Science Composite List of Weeds – 2010 available as pdf or Excel file on the WSSA website). **Undergraduate students will only use the common names.** The fall preceding the contest the host should evaluate its weed seed supply and obtain additional seeds/tubers if needed so that an excellent representation of the weed species can be selected for identification.

It is important to utilize as many plant species as possible. The plants will be grown in sufficient numbers so that adequate samples are available so that 30 to 70 contestants can have specimens for identification. The contestants will be allowed ample time to identify each specimen. The percentage of samples will range from 50 to 80% weeds, from 40 to 20% seeds, and 0 to 10% digital images. Uncontaminated weed seed and plant samples are essential for effective identification. **Pure samples are essential.** The contestant's score will be figured as follows: 2 points for each correctly identified species (1 point for common name and 1 point for scientific name with 0.5 points for Genus and 0.5 points for species) x 50 = 100 points. **If names are not spelled correctly or capitalized correctly, they are wrong. Likewise, answers must be in the correct column.** Teams will not be supplied weed seed for study, but rather rely on their own training resources.

However, teams are encouraged to expand/improve their training resources through contacts with other weed scientists. This approach may better reflect individual and team preparation for the contest.

2. **Calibration** (100 points)

This event consists of two sections: an individual written test worth 50 points and a team sprayer calibration event worth 50 points.

The individual written test will cover problems and factual information about sprayer and seed treatment calibration of all types; the written portion will be scored as an individual and team event (50 points per person). The host should take particular care to insure all banded application and skip-row calibration problems are stated clearly. Individual team members and alternates will be given a maximum of 1 hour to complete the written exam. **Students will be required to bring their own calculators. Any make or model is acceptable, but programmable calculators are not allowed. Host can provide calculators, if needed.** The three or four individual team member scores will be added and divided by the number of individuals on the team to give the number of points out of 50 for the team score.

In the team section, the host will provide a hands-on calibration activity that focuses on team, rather than individual performance. Students should have practical calibration knowledge for air

blast sprayers, tractor sprayers, backpack sprayers, granular applicators, greenhouse spray chambers, etc. **Differences in time for the competition will count no more than 40% of the overall score. Accuracy of calibration is critical.**

To determine final team score for the calibration event, the number of points scored out of 50 obtained in the team event will be added to the average score of the three or four high team members from the individual calibration problems for a maximum possible of 100 points.

Reference material for the individual problems will be Chapter 23 of Applied Weed Science by Ross and Lembi (2009); Circular 1192 - Equipment and Calibration; Low-Pressure Sprayers, and Circular 1240 - Equipment and Calibration: Granular Applicators, both by Bode and Pearson (University of Illinois); Roth, L.O. and H.L. Fields, eds. 1991. Introduction to Agricultural Engineering: A Problem Solving Approach, Second Edition, New York: Chapman and Hall; Aerial Application Handbook for Applicators by Dennis K. Kuhlman, Kansas State University; Research Methods in Weed Science, 3rd ed. SWSS 1986; Physiology of Herbicide Action. M.D. Devine, S. O. Duke, and C. Fedtke, 1993; Herbicide Handbook. WSSA 10th ed. 2016, and various unit conversions.

3. **Crop Response to Herbicides** (100 points)

This is an area of extreme difficulty for the students. **Thus, the host must have available a sprinkler irrigation system so that residual herbicides may be activated and weeds and crops maintained in an active growth stage for postemergence treatments.** A list of possible crops and herbicides with rate and method of application are provided in Table 2. The test must contain at least 6 crops and 6 weeds and will be planted and treated with a wide range of preemergence and postemergence herbicides from the list. Each herbicide plot will contain a 1X rate of the unknown herbicide adjusted for the soil type. It is suggested that the test be planted 4 to 5 weeks prior to the contest, with postemergence herbicides being applied 10 to 14 days prior to the contest. Each contestant will be required to identify the unknown herbicides by WSSA-approved chemical family and herbicide group number and the common name by observation of crop and weed responses. The family name and group number will be given 25% credit each and the common name will account for 50% credit; Put the letter for the correct family, followed by the group number and follow it with the correctly spelled common name. For the aryloxyphenoxy or cyclohexane family, the host may choose the specific product.

Reference: <http://wssa.net/wp-content/uploads/WSSA-Herbicide-MOA-20160911.pdf>

There should be from 10 to 15 plots. Herbicide plots may be duplicated and check plots can be utilized. It would be of great benefit to the students if they could be led back through the plots following the event. **Students will not be allowed to pull any portion of the plants in the plots. If plants are pulled, the student will lose the points for that plot.**

4. **Crop/weed Situation and Recommendations** (100 points)

Contestants will be required within 15 minutes to determine and evaluate a crop/weed situation and recommend the most effective legal remedy to the problem.

Each contestant will have two field problems to solve. Recommendations must comply with the label of each herbicide recommended. Students should give consideration to such factors as stage of growth, crop tolerance, climatological factors, agricultural spraying procedures, weed control, economics, and impact upon the environment. The host will determine the best answer considering all alternatives for a situation, although several possible answers may be correct. The latest Federal (Section 3) or State (Section 24C) labels of the product constitutes legal control. The event will be conducted as a "role-play" situation and the potential problem will be in one of the crops on the problem-solving sheet. Also, the potential herbicide and weed problem will involve only the listed herbicides and weeds on the predetermined problem-solving sheet. The contestant

will be asked to assume the role of a chemical company representative, state extension specialist, or independent crop consultant when dealing with the farmer and scored as follows:

- 5 points - proper approach to farmer
- 20 points - understanding and solving problem
- 12.5 points - recommendations for this year's crop
- 12.5 points - recommendations for next year's crop

Each team will be divided at random into two groups in order to handle one of two different problem situations. Following completion of the first problem, the groups will switch problems and repeat the procedure. **Each participant will evaluate the same two problems.** Alternates and other individuals will be equally divided between the two groups. The assigned judge and farmer will independently score each participant from a predetermined scoring sheet with assigned points for each statement, compare scores, and adjust if necessary. **Prior to the contest, judges and farmers will be tested to ensure that the scorers will give equivalent scores within each individual field problem.** Each field problem will be worth 50 points and to obtain the participants score, the two scores will be added for a maximum of 100 points.

5. **Mystery Event** (15 to 20 points)

This team or individual event will be any agriculturally related problem and the contestants will not be advised of the area to study prior to the contest. The mystery event will count toward the team score and individual scores.

Scoring

Overall team ranking of each respective school should be provided to the team coach the night of the banquet following the event. Individual score sheets including their respective ranking against all other competitors should be distributed back to the contestants or their coach at the end of the banquet. An answer key should also be distributed to the team coach.

Scores should be tabulated using a scoring format as listed in the examples below. Each phase of the contest will be scored equally (100 pts. each) except for the mystery event (15 or 20 pts) for a total of 415 or 420 points per team. Examples areas follows:

A. All teams with four individuals.

Event											
			Field Problem			Calibration					
Super University	ID	Crop/Weed Response	1	2	Avg.	Team	Ind.	Myst.	Score	Ind.	Team Placing
John Doe	86	60	25	19	44	--	45	5	240	9	
Bill Smith	80	65	47	31	78	--	35	5	263	5	
Jane Doe	95	75	35	25	60	--	45	0	275	1	
Roy James	63	50	43	43	86	--	45	3	247	7	
Total	324.0	250.0	--	--	268	--	170	13			
Team Avg.	81.0	62.5	--	--	67	40	42.5	3.25			
Team											3
Total	296.25										
<u>Alternates</u>											
Pat Ray	80	60	31	201	51	--	45	5	241	8	
Jim Jones	65	45	27	18	45	--	50	0	205	20	

B. Mixed three and four individual teams (if teams with three individuals attend).

Event											
			Field Problem			Calibration					
Super University	ID	Crop/Weed Response	1	2	Avg.	Team	Ind.	Myst.	Score	Ind.	Team Placing
John Doe	--	--	--	--	--	--	--	--	240	9	
Bill Smith	80	65	47	31	78	--	35	5	263	5	
Jane Doe	95	75	35	25	60	--	45	0	275	1	
Roy James	63	50	43	43	86	--	45	3	247	7	
Total	238.0	190.0	--	--	224	--	125	8			
Team Avg.	79.33	63.33	--	--	74.6	40	41.67	2.67			
Team											3
Total	301.67										
<u>Alternates</u>											
Pat Ray	80	60	31	20	51	--	45	5	241	8	
Jim Jones	65	45	27	18	45	--	50	0	205	20	

Alternates and low individuals of four member teams will not be scored as part of a team, but can win individual prizes.

Contest Committee

All coaches and individuals within academia, research, and industry, as well as potential contest hosts are invited to serve on the committee. On the morning of the contest, prior to contestants entering the events, individuals from the host location and all committee members will review each event and last minute corrections will be made and be the authority for all questions relating to the contest. If questions arise that cannot be resolved through interpretation of the standing rules or cannot be resolved through communication with the committee chairman or members of the committee, the contest host has the authority to make the final decision in the best interest of the contest.

Expense

Each university will provide its own transportation to and from the contest and cover all expenses incurred during travel. The host will provide meals the evening before and the day of the contest. The weed contest committee will provide the prize money and the plaques.

Location

The Southern Weed Contest will be held at any facility within the Southern Weed Science Region with the capability of providing all the designated events.

Dishonesty

All coaches are charged with ensuring that teams abide by rules of the contest, and that no team gains an unfair advantage. This includes, but is not limited to, cheating. Cheating is defined as a dishonest violation of rules as determined by the coaches attending the contest. A committee made up of all coaches attending the contest will deal with acts related to cheating. A team and/or individual that does not abide by the rules of the contest will be disqualified and will automatically receive last place at the contest. Teams are not allowed to visit contest site 30 days prior to contest without permission of host. **All contestants' cell phones, iPad's, or computers will be collected by team coaches and bagged by individual name when arriving at the contest site on the morning of the event.**

Table 1. 2016 SWSS WEED CONTEST WEED LIST

Common name	Genus	Species
velvetleaf	<i>Abutilon</i>	<i>theophrasti</i>
hophornbeam copperleaf	<i>Acalypha</i>	<i>ostryifolia</i>
northern jointvetch	<i>Aeschynomene</i>	<i>virginica</i>
alligatorweed	<i>Alternanthera</i>	<i>philoxeroides</i>
Palmer amaranth	<i>Amaranthus</i>	<i>palmeri</i>
redroot pigweed	<i>Amaranthus</i>	<i>retroflexus</i>
spiny amaranth	<i>Amaranthus</i>	<i>spinusus</i>
tall waterhemp	<i>Amaranthus</i>	<i>tuberculatus</i>
common ragweed	<i>Ambrosia</i>	<i>artemisiifolia</i>
giant ragweed	<i>Ambrosia</i>	<i>trifida</i>
purple ammannia	<i>Ammannia</i>	<i>robusta</i>
broomsedge	<i>Andropogon</i>	<i>virginicus</i>
trumpetcreeper	<i>Campsis</i>	<i>radicans</i>
musk thistle	<i>Carduus</i>	<i>nutans</i>
smellmelon	<i>Cucumis</i>	<i>melo</i>
southern sandbur	<i>Cenchrus</i>	<i>echinatus</i>
prostrate spurge	<i>Chamaesyce</i>	<i>humistrata</i>
spotted spurge	<i>Chamaesyce</i>	<i>maculata</i>
common lambsquarters	<i>Chenopodium</i>	<i>album</i>
bull thistle	<i>Cirsium</i>	<i>vulgare</i>
Benghal dayflower	<i>Commelina</i>	<i>benghalensis</i>
spreading dayflower	<i>Commelina</i>	<i>diffusa</i>
field bindweed	<i>Convolvulus</i>	<i>arvensis</i>
horseweed	<i>Conyza</i>	<i>canadensis</i>
showy croton	<i>Crotalaria</i>	<i>spectabilis</i>
woolly croton	<i>Croton</i>	<i>capitatus</i>
tropic croton	<i>Croton</i>	<i>glandulosus</i> var. <i>septentrionalis</i>
bermudagrass	<i>Cynodon</i>	<i>dactylon</i>
yellow nutsedge	<i>Cyperus</i>	<i>esculentus</i>
purple nutsedge	<i>Cyperus</i>	<i>rotundus</i>
rice flatsedge	<i>Cyperus</i>	<i>iria</i>
crowfootgrass	<i>Dactyloctenium</i>	<i>aegyptium</i>
jimsonweed	<i>Datura</i>	<i>stramonium</i>

Florida beggarweed	<i>Desmodium</i>	<i>tortuosum</i>
smooth crabgrass	<i>Digitaria</i>	<i>ischaemum</i>
large crabgrass	<i>Digitaria</i>	<i>sanguinalis</i>
Virginia buttonweed	<i>Diodia</i>	<i>virginiana</i>
jungerice	<i>Echinochloa</i>	<i>colona</i>
barnyardgrass	<i>Echinochloa</i>	<i>crus-galli</i>
eclipta	<i>Eclipta</i>	<i>prostrata</i>
goosegrass	<i>Eleusine</i>	<i>indica</i>
southwestern cupgrass	<i>Eriochloa</i>	<i>acuminata</i>
wild poinsettia	<i>Euphorbia</i>	<i>heterophylla</i>
Carolina geranium	<i>Geranium</i>	<i>carolinianum</i>
ground ivy	<i>Glechoma</i>	<i>hederacea</i>
common sunflower	<i>Helianthus</i>	<i>annuus</i>
ducksalad	<i>Heteranthera</i>	<i>limosa</i>
hydrilla	<i>Hydrilla</i>	<i>verticillata</i>
cogongrass	<i>Imperata</i>	<i>cylindrica</i>
red morningglory	<i>Ipomoea</i>	<i>coccinea</i>
ivyleaf morningglory	<i>Ipomoea</i>	<i>hederacea</i>
pitted morningglory	<i>Ipomoea</i>	<i>lacunosa</i>
bigroot morningglory	<i>Ipomoea</i>	<i>pandurata</i>
tall morningglory	<i>Ipomoea</i>	<i>purpurea</i>
palmleaf morningglory	<i>Ipomoea</i>	<i>wrightii</i>
smallflower morningglory	<i>Jacquemontia</i>	<i>tamnifolia</i>
green kyllinga	<i>Kyllinga</i>	<i>brevifolia</i>
henbit	<i>Lamium</i>	<i>amplexicaule</i>
Amazon sprangletop	<i>Leptochloa</i>	<i>panicoides</i>
bearded sprangletop	<i>Leptochloa</i>	<i>fusca var. fascicularis</i>
tall fescue	<i>Lolium</i>	<i>arundinaceum</i>
Italian ryegrass	<i>Lolium</i>	<i>perenne ssp. multiflorum</i>
carpetweed	<i>Mollugo</i>	<i>verticillata</i>
cutleaf evening-primrose	<i>Oenothera</i>	<i>laciniata</i>
red rice	<i>Oryza</i>	<i>sativa</i>
yellow woodsorrel	<i>Oxalis</i>	<i>stricta</i>
fall panicum	<i>Panicum</i>	<i>dichotomiflorum</i>
torpedograss	<i>Panicum</i>	<i>repens</i>

Dallisgrass	<i>Paspalum</i>	<i>dilatatum</i>
cutleaf groundcherry	<i>Physalis</i>	<i>angulata</i>
clammy groundcherry	<i>Physalis</i>	<i>heterophylla</i>
buckhorn plantain	<i>Plantago</i>	<i>lanceolata</i>
annual bluegrass	<i>Poa</i>	<i>annua</i>
prostrate knotweed	<i>Polygonum</i>	<i>aviculare</i>
Pennsylvania smartweed	<i>Polygonum</i>	<i>pensylvanicum</i>
ladysthumb	<i>Polygonum</i>	<i>persicaria</i>
common purslane	<i>Portulaca</i>	<i>oleracea</i>
wild radish	<i>Raphanus</i>	<i>raphanistrum</i>
Florida pusley	<i>Richardia</i>	<i>scabra</i>
curly dock	<i>Rumex</i>	<i>crispus</i>
sicklepod	<i>Senna</i>	<i>obtusifolia</i>
coffee senna	<i>Senna</i>	<i>occidentalis</i>
hemp sesbania	<i>Sesbania</i>	<i>herbacea</i>
giant foxtail	<i>Setaria</i>	<i>faberi</i>
yellow foxtail	<i>Setaria</i>	<i>pumila</i>
green foxtail	<i>Setaria</i>	<i>viridis</i>
arrowleaf sida	<i>Sida</i>	<i>rhombofolia</i>
prickly sida	<i>Sida</i>	<i>spinosa</i>
horsenettle	<i>Solanum</i>	<i>carolinense</i>
silverleaf nightshade	<i>Solanum</i>	<i>elaeagnifolium</i>
eastern black nightshade	<i>Solanum</i>	<i>ptychanthum</i>
lawn burweed	<i>Soliva</i>	<i>sessilis</i>
johnsongrass	<i>Sorghum</i>	<i>halepense</i>
common chickweed	<i>Stellaria</i>	<i>media</i>
dandelion	<i>Taraxacum</i>	<i>officinale</i>
puncturevine	<i>Tribulus</i>	<i>terrestris</i>
broadleaf signalgrass	<i>Urochloa</i>	<i>platyphylla</i>
Texas millet	<i>Urochloa</i>	<i>texana</i>
common cocklebur	<i>Xanthium</i>	<i>strumarium</i>

* **Bold -- plants only**

Table 2. 2016 SOUTHERN WEED CONTEST CROP AND WEED RESPONSE TO HERBICIDES

Crops*		Weeds	
1. cotton	6. southern pea	1. broadleaf signalgrass	7. Palmer amaranth
2. field corn	7. soybean	2. ivyleaf morningglory	8. pitted morningglory
3. grain sorghum	8. sunflower	3. fall panicum	9. prickly sida
4. peanut	9. squash/zucchini	4. hemp sesbania	10. seedling johnsongrass
5. rice	10. sweet potato	5. large crabgrass	11. velvetleaf
		6. barnyardgrass	12. sicklepod

*At least 6 crops and 6 weeds must be included

Potential Herbicide Families and Herbicides	
Amide (group 8) 1. propanil (4.0 lb ai/A POST)	Isoxazoline (group 15) 12. pyroxasulfone (0.106 lb ai/A PRE)
Sulfonanilide (group 2) 2. cloransulam-methyl (0.0394 lb ai/A PRE)	Phenoxy (group 4) 13. 2,4-D (0.5 lb ae/A POST)
Benzoic acid (group 4) 3. dicamba (0.25 lb ae/A POST)	N-Phenylphthalimide (group 14) 14. flumioxazin (0.064 lb ai/A PRE)
Bipyridylum (group 22) 4. paraquat (0.5 lb ai/A POST) + NIS	Phosphinic acid (group 10) 15. glufosinate (0.54 lb ai/A POST) + NIS
Chloroacetamide (group 15) 5. S-metolachlor (1.25 lb ai/A PRE)	Pyrimidinedione (group 14) 16. saflufenacil (0.0223 lb ai/A POST) + MSO
Cyclohexanedione (group 1) 6. sethoxydim (0.191 lb ai/A POST) + COC	Quinoline carboxylic acid (group 4) 17. quinclorac (0.5 lb ai/A POST) + MSO
Dinitroaniline (group 3) 7. pendimethalin (1.0 lb ai/A PRE)	Substituted urea (group 7) 18. diuron (0.5 lb ai/A PRE) 19. fluometuron (1.0 lb ai/A PRE)
Diphenylether (group 14) 8. fomesafen (0.25 lb ai/A POST) + COC	Sulfonylurea (group 2) 20. chlorimuron (0.0156 lb ai/A PRE) 21. trifloxysulfuron (0.007 lb ai/A POST) + NIS
Glycine (group 9) 9. glyphosate (0.77 lb ae/APOST) + NIS	Triazine (group 5) 22. atrazine (1.5 lb ai/A POST) + COC 23. metribuzin (0.375 lb ai/A PRE)
Imidazolinone (group 2) 10. imazethapyr (0.063 lb ai/A POST)	Triazolinones (group 14) 24. carfentrazone (0.023 lb ai/A POST)+ COC
Isoxazolidinone (group 13) 11. clomazone (0.375 lb ai/A PRE)	Triketone (group 27) 25. mesotrione (0.094 lb ai/A POST)+ MSO

**COC = crop oil concentrate at 1% (v/v); NIS = nonionic surfactant at 0.25% (v/v); MSO = methylated seed oil at 1% v/v. Some herbicide formulations may include an adjuvant system and do not require additional adjuvants. Label rates should be followed and adjusted based on soil type. The soil type will be sand with O.M. in the range of 0.7 to 1%, CEC in the range of 3 to 5, and pH of 6.6 to 7.6.

PROBLEM SOLVING AND RECOMMENDATIONS

Potential Crops* (6):

Cotton Field
corn
Grain sorghum
Soybean
Sunflower
Tomatoes Citrus
Turf
Sugarcane
Peanuts

*including all registered traits, where available

Weeds:

Any weed from the 2017 weed identification list.

Herbicides:

Any herbicide labeled in the crops listed above.

Scoring:

The 'farmer' and a judge will independently score each contestant from predetermined scoring sheet.

Role:

Each contestant will be assuming the role of a chemical company representative, independent crop consultant, or state extension specialist.

WASHINGTON REPORT

April 26, 2017

Lee Van Wychen

What Are Your Most Common and Troublesome Weeds in Grass Crops?

The National and Regional Weed Science Societies are seeking your expertise in identifying the most common and troublesome weeds in the following grass cropping systems: 1) corn 2) rice, 3) sorghum, 4) spring grains, 5) winter grains, 6) pastures/rangeland, and 7) turf.

Please take a few minutes to list your top five most common and troublesome weeds at: <https://www.surveymonkey.com/r/2017weeds>

New CAST Issue Paper- Crop Protection Contributions toward Agricultural Productivity

The Council for Agricultural Science and Technology (CAST) released a new Issue Paper on April 5 that examines the current plant protection revolution that is driven by the biological realities of pesticide resistance, various market forces, and real or perceived side effects of pesticides. The paper has six authors, including weed scientists Dr. Hugh Beckie from Agriculture and Agri-Food Canada and Dr. Jill Schroeder from the U.S. Department of Agriculture. The authors cover a lot of ground in the 20 page report including:

- Plant Protection Trends—Current and Future
- New Biological Insect, Disease, and Weed Management Tools
- The Role of Emerging Crop Protection Technology Solutions in Integrated Pest Management
- How to Preserve Crop Protection Chemistries and Traits—Efficacy, Durability, and Usefulness into the Future

The Issue Paper accurately captures both the similarities and differences in the pest management challenges faced by weed scientists, plant pathologists, entomologists, and nematologists. The authors discuss new technologies such as drones, smart sprayers, and specially designed cultivators--and they examine current biotech advancements such as CRISPR-Cas9 and other techniques that may fit well into integrated pest management systems. They emphasize the need for research, communication, and collaboration as scientists "develop integrated strategies for managing pests while preserving ecosystem services and farm productivity."

This CAST Issue Paper (IP58) and its companion Ag quickCAST are available online at the CAST website: <https://www.cast-science.org/publications/>

Perdue Confirmed as Secretary of Agriculture



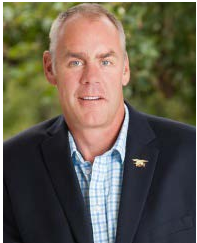
Sonny Perdue was confirmed as the 31st Secretary of Agriculture by the Senate on April 24, 2017 by a vote of 87-11. The Senate Agriculture Committee approved Sonny Perdue's nomination by a voice vote on March 30, 2017. Perdue, 70, was born and raised on a diversified row crop and dairy operation in central Georgia and earned a doctorate in veterinary medicine from the University of Georgia in 1971. Following a brief tenure as a practicing veterinarian, Perdue started two businesses from the ground up, concentrating in agribusiness and transportation. Perdue also served two terms as Georgia's governor from 2003-2011. Perdue is only the third Secretary of Agriculture out of 31 to actually have lived and worked in agriculture during their adult career. More on Secretary Perdue at: <https://www.usda.gov/our-agency/about-usda/our-secretary>.

Pruitt Confirmed as EPA Administrator



On February 17, 2017, the Senate confirmed Scott Pruitt as the 14th Administrator of the U.S. EPA by a vote of 52-46. The 49 year old Pruitt was born and raised in Kentucky where he graduated from Georgetown College in 1990. After that, he moved to Oklahoma where he earned his law degree at the University of Tulsa specializing in constitutional law. Most recently, Pruitt served as the Attorney General for Oklahoma. More on Administrator Pruitt at: <https://www.epa.gov/aboutepa/epas-administrator>

Zinke Confirmed as Secretary of Interior



Ryan Zinke was confirmed as the 52nd Secretary of the Interior by the Senate on March 1, 2017 by a vote of 68-31. The native Montanan served 23 years as a U.S. Navy Seal officer, retiring in 2008. He has a B.S. in Geology from the University of Oregon, a Masters in Business Finance from National University, and a Masters in Global Leadership from the University of San Diego.

During his confirmation hearings, Zinke said he would take a “multi-use approach” to federal land management on the more than 500 million acres of public land managed by the Department of Interior. He also vowed to clear the estimated \$12 billion backlog in maintenance and repair at national parks. More on Secretary Zinke at: <https://www.doi.gov/pressreleases/ryan-zinke-sworn-52nd-secretary-interior>

NIFA Releases Study on the Value of Capacity Programs

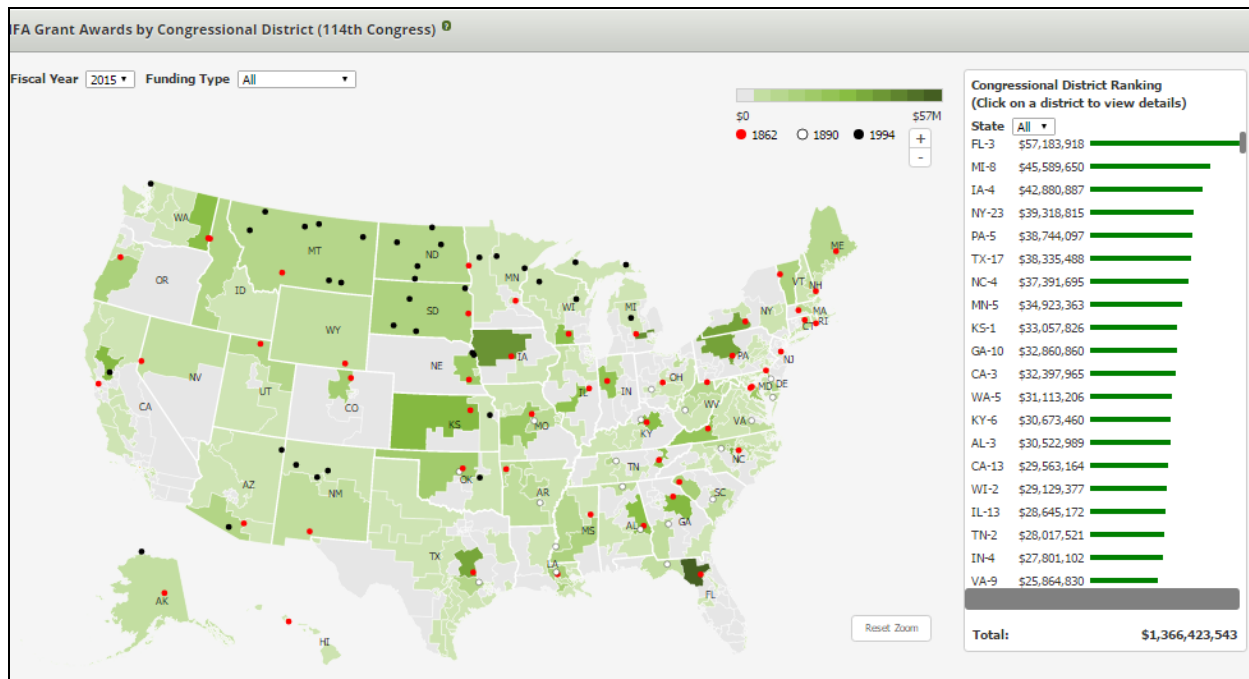
On March 27, the USDA National Institute of Food and Agriculture (NIFA) released a new report that measured the effectiveness of NIFA’s investments in capacity programs. The report entitled, “[National Evaluation of Capacity Programs](#),” was prepared by TEconomy Partners. The report found that capacity funding remains a relevant program that offers multiple benefits. Investments respond to the specific needs of local, regional, and state agricultural producers. Capacity funds offer an essential funding stream for research and extension programs of relevance to producers that are unlikely to receive national-scale attention. **Each dollar of capacity funding leverages \$1.85 in additional investments from state, local, and private sector sources.**

NIFA commissioned the study to determine whether funding based on 100-year-old legislation is still a suitable model to support 21st century university needs. The results of the study will be helpful in defending the federal investment in capacity programs such as Hatch and Smith Lever as budget constraints lead to discussions about potential cuts to the USDA budget.

Map of USDA-NIFA Grant Awards by Congressional District Available

A new, interactive map from USDA’s National Institute of Food and Agriculture (NIFA) shows both Competitive and Capacity Grant awards to the 1862, 1890, and 1994 land grant institutions. The Congressional District map is based on the 114th Congress (2015-16) and shows awards for each year from FY 2011 through FY 2015. Top of the list in FY 2015 was FL-3, home to the University of Florida, which received just over \$57 million.

See: <https://portal.nifa.usda.gov/web/maps/nifa-funding-by-congressional-district/>



The above map is part of USDA's Research, Education, and Economics Information System (REEIS), <https://reeis.usda.gov/>. The website is an excellent source of information on the research, education and extension programs funded by USDA and includes many other types of state and national reports, trends, rankings and maps

House Ag Subcommittee Holds Hearing on Ag Research

On March 16, the House Agriculture Subcommittee on Biotechnology, Horticulture, and Research held a hearing titled "The Next Farm Bill: Agricultural Research." For more details: <http://agriculture.house.gov/calendar/eventsingle.aspx?EventID=3728>. The subcommittee heard testimony from:

- Dr. Jay Akridge – Glenn W. Sample Dean of Agriculture, Purdue University, West Lafayette, IN; on behalf of APLU.
- Mr. Richard Wilkins – Chairman, American Soybean Association, Greenwood, DE; on behalf of NC-FAR.
- Dr. James Carrington – President, Danforth Center, St. Louis, MO; on behalf of the Danforth Center.

Each of the witnesses talked about the importance of research to the future success of agriculture and the farm economy. Dr. Akridge, testifying on behalf of the land grant universities, spoke about the need to support competitive and capacity programs, as well as infrastructure. Mr. Wilkins, representing the National Coalition for Food and Agricultural Research (of which WSSA is a member), gave the perspective of stakeholders who use and benefit from agriculture research to support their businesses. Dr. Carrington focused his testimony on the Agriculture and Food Research Initiative (AFRI), its operations, and the need for increased support.

This was the first agriculture research-focused hearing conducted in preparation for the next Farm Bill. The House and Senate Agriculture Committees are expected to hold numerous additional hearings as they work to develop the next Farm Bill.

Trump Budget Blueprint Proposes Cuts to USDA

On March 16, President Trump released his budget blueprint for FY 2018. The blueprint provides proposed funding levels across the government, but in most cases does not get into many programmatic details. The Department of Defense would receive an increase of \$54 billion, while most other departments would face significant cuts.

Under the blueprint, the USDA would be cut by 21% from the current FY 2017 Continuing Resolution level. The blueprint does not provide many details on how these cuts would impact agricultural research. The Agriculture and Food Research Initiative (AFRI) would receive \$350 million under the blueprint, which represents the same level received in FY 2016 and the current FY 2017 Continuing Resolution. However, this is \$25 million less than the House and Senate Appropriations Committee versions of the FY 2017 agriculture appropriations bill. Funding levels for capacity programs such as Hatch and Smith Lever are not mentioned.

The blueprint states that in-house research funding within the Agricultural Research Service (ARS) would be focused on the highest priority agriculture and food issues such as increasing farming productivity, sustaining natural resources, including those within rural communities, and addressing food safety and nutrition priorities. Without providing specifics, it appears that the Economic Research Service (ERS) and the National Agricultural Statistics Service (NASS) would be cut significantly, although the 2017 Census of Agriculture would be supported.

It is important to note that this is one of the first steps in the development of the FY 2018 budget. Major cuts like those proposed in the Budget Blueprint would have to be approved by Congress through the annual appropriations process. A copy of the Budget Blueprint [can be found here](#).

New National Research Initiative Aims to Improve Cover Crops

The Foundation for Food and Agriculture Research (FFAR) and The Samuel Roberts Noble Foundation launched a national cover crop initiative on March 22, 2017.

The \$6.6 million research initiative, made possible by a \$2.2 million grant from FFAR, will promote soil health through the development and adoption of new cover crops across the U.S. The Noble Foundation has been a leader in developing forages and new cover crop varieties since the 1950s. The initiative will bring together collaborators from the seed industry, USDA-ARS, USDA-NRCS, three land grant universities, and an existing Legume Cover Crop Breeding Team, comprising another six land grant universities, ARS sites and a producer network.

The focus of the initiative will be to identify cover crop species with the greatest potential to improve soil health and evaluate such species over a broad geography within three groups: small grains (wheat, rye, oat and triticale), annual legumes (hairy vetch, winter peas and clovers), and brassicas (turnips, radishes, kale and mustards).

The project is not limited to traditional breeding and evaluation. Engaging both producers and industry, researchers will seek to identify and introduce key traits that can improve crop performance and soil enhancement. Additionally, scientists at the Noble Foundation will utilize advanced breeding techniques – which have traditionally been limited in application to high-value, row crops – to bring new and value-added characteristics to cover crops.

Field trials will be conducted at five strategic sites to assist with cover crop evaluations: Maryland for the northeast, North Carolina for the southeast, Oklahoma for the Southern Plains, Nebraska for the Northern Plains and Missouri for the Midwest.

Short-term goals of the research are to identify the best cover crop species and varieties currently available through evaluation and screening, promote them to farmers and ranchers, and increase effective options within the marketplace. Researchers will share results from this project with the public through national meetings and peer-reviewed publications. Certain outcomes, including molecular markers, will be made available through publication and publicly accessible databases.

New Paraquat Risk Mitigation Measures Final, EPA Grants Research Exemption.

As part of the registration review process for paraquat, EPA proposed additional mitigation measures, such as paraquat-specific applicator training material and prohibiting backpack applications, in order to minimize human health incidents from paraquat. WSSA had several concerns related to the costs and requirements of some of the proposed mitigation measures, but our greatest concern was that prohibiting paraquat applications from hand-held equipment would essentially eliminate the weed science community's ability to do small plot research with paraquat. WSSA's comments are at: http://wssa.net/wp-content/uploads/WSSA-comments-on-paraquat-mitigation_FINAL.pdf

On Dec. 15, 2016, EPA finalized its mitigation decisions and implementation plan which can be found at: <https://www.regulations.gov/document?D=EPA-HQ-OPP-2011-0855-0112>. EPA addressed many of our concerns with their final decision, including providing a research exemption to a couple of the mitigation measure requirements. Specifically: *"The Agency recognizes that paraquat is widely used in agricultural research as a standard burndown and desiccant treatment, to which other herbicides and desiccants are compared. Because of its use as a standard treatment, it has high benefits for use in small scale research trials. Based on these facts and the comments received regarding the importance of paraquat for research purposes, EPA will grant a research exemption from the closed system requirement and the 'certified applicator only' requirement."*

Pesticide Registration Improvement Bill Passed by House

H.R. 1029, the 4th reauthorization of the Pesticide Registration Improvement Act (PRIA), passed the House by a voice vote on March 20 and now heads to the Senate. PRIA sets fees for pesticide registrants seeking to get products registered in return for regular approval schedules. Specifically, the bill extends the maintenance fee provision until 2023 and increases the total amount of maintenance fees to \$31 million, extends the prohibition on levying registration fees, and includes additional uses for any fees collected to defray costs associated with registration review. In addition, H.R. 1029 codifies timeframes for experimental use permits as well as clarifies applications of inert ingredients, Gold Seal letters, and any other actions that are not pesticide activities but are subject to registration service fees. Further, annual reporting requirements and set-asides for worker protection, partnership grants, and safety education are extended until 2023.

Since 1954, Congress has authorized the collection of different types of fees to partially defray various costs related to federal pesticide regulation activities. Collected fees are deposited as receipts in the "Reregistration and Expedited Processing Fund" in the U.S. Treasury. These fees are made available to the EPA as mandatory appropriations.

PRIA 1, which became law in 2003, provided the current framework for EPA to collect maintenance and registration services fees. PRIA 2 in 2008 reauthorized and amended the pesticide fee framework by adding new categories of applicants. PRIA 3 further amended the fee framework that is currently applied today. In addition to extending provisions, this legislation

adjusts fee amounts, increases transparency, encourages Good Laboratory Practices, and adds flexibility to the use of collected fees.

The law has bipartisan support because registrants also put money aside for farmworker safety and environmental programs. Under PRIA 4, pesticide registrants are proposing to increase those fees and have the measure last seven years instead of five. PRIA 3 expires on Sept. 30, 2017.

APHIS Seeks Comments on Revision of its Biotechnology Regulations. APHIS is proposing to revise its regulations regarding the importation, interstate movement, and environmental release of certain genetically engineered organisms in order to update the regulations in response to advances in genetic engineering and our accumulated experience in implementing the current regulations, as well as reduce the burden on regulated entities. This is the first comprehensive revision of the regulations since they were established in 1987. To view the proposed rule and submit public **comments by June 19, 2017**, see [Docket No. APHIS-2015-0057](#).

In concert with the proposed revised regulations now being developed, APHIS is developing a process that includes an evidenced-based, standardized approach to assessing risk prior to making the decision whether to require controls (e.g. movement permits). This upfront risk analysis process will include either (in most cases): A [Weed Risk Assessment \(WRA\)](#) to characterize weed risk, if any, of genetically engineered (GE) plants, OR: A Plant Pest Risk Assessment (PPRA) for invertebrates, microorganisms, and GE plants (where appropriate), to characterize plant pest risk, if any.

Seed Industry Announces New Palmer Amaranth Seed Test

The following press release was issued by the American Seed Trade Association (ASTA), which represents over 700 companies involved in seed production, plant breeding and related industries in North America.

Weed seed can be spread in a variety of ways—including by air, animals, rain, soil and mechanical means. In a recent survey, the Weed Science Society of America (WSSA) identified Palmer amaranth (PA) as a very problematic weed in many parts of the country. To prevent PA from entering the professional seed supply, the native seed industry has been working closely with the scientific community on the development and validation of a rapid DNA test to identify PA.

“This new test will provide companies and their customers with an additional tool to ensure purity,” said ASTA President & CEO Andy LaVigne. “The American Seed Trade Association’s membership includes native seed producers with generations of experience who deliver professionally produced, quality seed to their customers. There’s a lot involved in producing the best seed for the best results.”

Developed by the California Department of Food and Agriculture and Eurofins BioDiagnostics, with support from the Minnesota Department of Agriculture Plant Protection Division Seed Program, the independently validated DNA sequencing method differentiates PA from other amaranth and weed species. While still available on a limited basis, the Minnesota Department of Agriculture Seed Unit recently announced it will accept the test for labeling purposes, as PA has been declared a prohibited noxious weed in the state. Although not designated as a noxious weed in any states other than Ohio and Minnesota, ASTA is taking steps to keep this troublesome weed out of seed sources. In addition to the DNA test, seed producers may also use a growout method from Illinois Crop Improvement Association to evaluate whether weed seeds are PA.

Professional seed suppliers have always taken great care in managing seed production to reduce the presence of diseases, pests and weeds. This includes field preparation and field inspections throughout the growing process; properly cleaning seed using state of the art equipment to maintain quality and performance; and testing to ensure high-quality performance standards are met. They must also comply with federal and state requirements for seed purity and germination, and these results must be on the seed tag. Industry Best Management Practices for Native Seed production can be found [here](#). Click [here](#) for more information on environmental and conservation seed, including a [list](#) of professional seed suppliers in each region.

Farmers who have identified PA in fields or conservation plantings are urged to contact their seed supplier, and local Natural Resource Conservation Service, Farm Service Agency or Extension professional.

Monarchs and Milkweed

The total area occupied by monarch colonies at overwintering sites in Mexico in 2016-17 was estimated to be 2.91 hectares, which is less than the 4.01 hectares in 2015-16, but still greater than the previous four winters before that. By most accounts, the 2016-17 overwintering numbers are still better than anticipated given that the overwintering grounds were hit with a freak snowstorm in March 2016 that killed up to an estimated 50% of the overwintering population. Weed scientists need to map and track milkweed distributions as there is very little “real data” available about milkweed distributions in the Midwest outside of Bob Hartzler’s survey data in parts of Iowa. I say “real data” tongue-in-cheek because there are several questionable entomology papers in the literature where they basically make up milkweed distribution data, and then conclude that monarch butterflies are declining due to a lack of milkweed.

That aside, the monarch butterfly is now a national priority species of [Working Lands for Wildlife](#) (WLFW), a partnership between USDA NRCS and the U.S. Fish and Wildlife Service (FWS) that will focus on the eastern monarch population. Through WLFW, NRCS targets conservation efforts where the returns are highest by targeting the threat of habitat loss. WLFW is able to provide technical and financial assistance through the Environmental Quality Incentives Program, Agricultural Conservation Easement Program and Conservation Stewardship Program, three programs funded through the Farm Bill, the largest funding source for wildlife habitat conservation on private lands. The projects initial focus is on two separate regions in the U.S., 7 states in the Midwest, and Texas, Oklahoma and Kansas in the South Central U.S. For the South Central U.S. states, NRCS will provide assistance to land owners for establishing spider milkweed, zizotes milkweed, and green antelopehorn on grazing lands. If land owners are interested in technical and financial assistance from NRCS, they should contact their [local USDA service center](#).

WOTUS rule - Judicial, Legislative, and Executive Branch Actions.

On November 1, 2016, opening briefs to the 6th Circuit Court were filed by 31 states, plus various organizations and companies opposed to the expanded federal jurisdiction over streams and wetlands under the Waters of the United States (WOTUS) rule finalized in 2015. The challengers argue that the WOTUS rule undermines state authority and take particular issue with what they say is the federal government’s disregard for whether a body of water is considered “navigable,” which they say should be key in determining where it can regulate. A 6th Circuit Court hearing is unlikely to occur before April 2017.

On Jan. 12, 2017, Senators Joni Ernst (R-IA) and Deb Fisher (R-NE) resurrected a resolution calling for the WOTUS rule to be scrapped. The nonbinding resolution would put the Senate on record as calling for the water rule to be withdrawn or vacated. The Senate fell just short of the 60 votes necessary to kill it last year, but with multiple moderate Democrats facing tough reelections in 2018, that could change. The new resolution could offer a test vote to see where lawmakers stand on the water rule now.

On Jan. 13, 2017, the Supreme Court agreed to hear a challenge by the National Association of Manufacturers (NAM) to a lower court ruling because of a provision in the Clean Water Act (CWA) that lays out when challenges are allowed to leapfrog lower courts. NAM's petition argues that challenges to the water rule should be first heard by district courts, rather than by appellate courts, as the 6th Circuit Court decided, because they are closer to concerns on the ground.

On Feb. 28, 2017, President Trump ordered a revised WOTUS rule. His executive order directs the heads of the Army Corps of Engineers and EPA to “review and reconsider” the existing WOTUS rule, which likely means it will be resubmitted through the federal rule making process. The order instructs the two agency leaders to review a 2006 opinion written by late Supreme Court Justice Antonin Scalia in *Rapanos v. United States*. In that opinion, Scalia argued that federal jurisdiction extends only to water bodies with a permanent flow or non-navigable waterways that connect via surface water with areas with permanent flow — definitions with a more limited approach than the EPA established in its existing WOTUS rule that was finalized in 2015.

“NPDES Fix” Legislation Introduced in 115th Congress.

New “NPDES fix” legislation has been re-introduced in both the House and Senate in the 115th Congress. The Reducing Regulatory Burdens Act of 2017 (HR 953) was introduced on Feb. 7, 2017 by Rep. Bob Gibbs (R-OH) and currently has 31 cosponsors. The House Agriculture Committee has already passed HR 953 by a voice vote on Feb. 16th. The companion bill in the Senate is S. 340 and was also introduced on Feb. 7 by Sen. Mike Crapo (R-ID) and Sen. Claire McCaskill (D-MO). S. 340 is titled the “Sensible Environmental Protection Act of 2017” and has 15 cosponsors. The NPDES-fix legislation has been passed by the House of Representatives in each of the last three sessions of Congress in 2011, 2013, and 2016.

Senate EPW Passes Invasive Species Legislation.

The Senate Environment & Public Works (EPW) committee passed the Wildlife Innovation and Longevity Driver (WILD) Act by a voice vote on April 5, 2017. The WILD Act was introduced by Senate EPW Chairman John Barrasso (R-WY) and cosponsored by Ranking Member Tom Carper (D-DE), James Inhofe (R-OK), Cory Booker (D-NJ), John Boozman (R-AR), and Sheldon Whitehouse (D-RI). The WILD Act (S. 826) would reauthorize funding for the Partners for Fish and Wildlife Program in which the Interior seeks partnerships with private landowners in fighting invasive species, including conserving habitat for the greater sage grouse. The bill would also offer rewards for innovative technologies to stop invasive species

National Invasive Species Awareness Week (NISAW).

NISAW was held February 27 to March 3, 2017 in Washington DC. There were different invasive species themed seminars and webinars every day of the week. All of the NISAW webinars were recorded and are available online at: www.nisaw.org.

The Congressional Invasive Species Caucus has a new co-chair: Rep. Elise Stefanik (R-NY) who was first elected to Congress in 2015 and is the youngest member in the House of Representatives at 32. She represents the northern 1/3 of New York. Mike Thompson (D-CA),

first elected to Congress in 1998 from California’s wine country just north of San Francisco, will remain as the other co-chair of the Congressional Invasive Species Caucus.

Invasive Species Issues Farm Bill Task Force Team.

A group of invasive species management stakeholders, led by the Reduce Risks from Invasive Species Coalition (RRISC) is drafting invasive species management language for the 2018 Farm Bill. Stakeholders include: American Forest & Paper Association, American Hort, Center for Invasive Species Prevention, Davey Tree Expert Company, Kansas State, Lone Tree Cattle Company, Lost Coast Forest Products, National Association of Conservation Districts, National Association of State Departments of Agriculture, National Cattlemen’s Beef Association, National Wooden Pallet & Container Association, Noble Foundation, Northeast-Midwest Institute, Pacific States Marine Fisheries Commission, Society for Range Management, Society of American Foresters, State of Colorado, Syngenta, TNC, University of Georgia, US Chamber of Commerce, Vermont Woodlands Association, and WSSA.

A few examples of some of the invasive species management language the coalition is working on include:

- Adding weed treatment area designations under Healthy Forest Restoration Act
- Promoting Areawide IPM language and funding through USDA NIFA
- Prevent NRCS program participants from planting “invasive plant species” on “reserve” lands
- Pilot projects for landscape-scale testing of grazing as a tool for rangeland invasive species control
- Adding “invasive species” to the Foundation of Food and Agricultural Research’s list of national priorities

SWSS Region- Most Common and Troublesome Weeds in Broadleaf Crops, Fruits and Vegetables.

In 2016, the National and Regional Weed Science Societies surveyed its members for the most common and troublesome weeds in the following broadleaf crop categories: 1) alfalfa, 2) canola, 3) cotton, 4) fruits & nuts, 5) peanuts, 6) pulse crops, 7) soybean, 8) sugar beets, 9) vegetables-cole crops, 10) vegetables-cucurbits, 11) vegetables-fruited, and 12) vegetables-other. Common weeds refer to those weeds you most frequently see, while troublesome weeds are those that are most difficult to control (but may not be widespread).

SWSS Region – Top 5 Weeds in Broadleaf Crops					
Rank	Most TROUBLESOME	Times Listed	Rank	Most COMMON	Times Listed
1	morningglory spp.	48	1	morningglory spp.	53
2	Palmer amaranth	43	2	Palmer amaranth	42
3	nutsedge spp.	34	3	crabgrass spp.	24
4	horseweed (marestail)	17	4	nutsedge spp.	21
5	sicklepod	13	5	Urochloa spp.	20

As you would expect, there were no grass weed species listed as “troublesome” in the top 5 weeds in broadleaf crops. Morningglory spp., Palmer amaranth and nutsedge spp. appeared on both the “most troublesome” and “most common” lists. If I didn’t group all the morningglory species together, Palmer amaranth would have easily been the most common and most

troublesome weed in broadleaf crops in the SWSS region. The 2016 data set is available at: <http://wssa.net/wssa/weed/surveys/>

The Rise of Predatory Publishing: How To Avoid Being Scammed!

This last news item is a little bit off the beaten path, but still very relevant to weed scientists. I want to specifically highlight an article in *Weed Science* written by WSSA's Director of Publications, Dr. Sarah Ward from Colorado State University. The issue of predatory publishing is a rapidly growing concern among all disciplines of science and many seasoned scientists have already been duped.

Prospective authors must ultimately decide for themselves whether an unfamiliar on-line open access journal is legitimate and of sufficient quality to be trusted with a manuscript submission. A useful first step is to find out whether the publisher belongs to the Open Access Scholarly Publishers Association (<http://oaspa.org>), and whether the journal is listed in the Directory of Open Access Journals (<http://doaj.org>), which has taken stronger recent action to filter out predatory publications.

Here is the abstract from Sarah's article (DOI: <https://doi.org/10.1614/WS-D-16-00080.1>):

*The rise of on-line open access (OA) has profound implications for academic publishing, not least the shift from subscribers to authors as the primary transactional partners for peer-reviewed journals. Although OA offers many benefits, it also paves the way for predatory publishers, who exploit the author-as-customer model to obtain revenue from author fees while providing few of the editorial services associated with academic publishing. Predatory journals publish papers with little or no peer review, and often disguise their real geographical location while exaggerating their scope and editorial expertise. **Such journals also attempt to attract authors by promising unrealistically rapid editorial decisions while falsely claiming peer review, and fabricating impact factors and inclusion in academic indexes.** The explosive increase in predatory OA journals is not only a risk to inexperienced authors, but also threatens to undermine the OA model and the legitimate communication of research.*

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Meetings of the National and Regional Weed Science Societies

Jul. 16 - 19, 2017 Aquatic Plant Management Society (APMS), Daytona Beach, FL www.apms.org

Dec. 4 - 7, 2017 North Central Weed Science Society (NCWSS), St. Louis, MO www.ncwss.org

Jan. 2018 Northeastern Weed Science Society (NEWSS), www.newss.org

Jan. 22 - 24, 2018 Southern Weed Science Society (SWSS), Atlanta, GA www.swss.ws

Jan. 29 - Feb. 1, 2018 Weed Science Society of America (WSSA), Arlington, VA www.wssa.net

Mar. 12-15, 2018 Western Society of Weed Science (WSWS), Garden Grove, CA www.wsweedscience.org