Volume 46, No. 2 July, 2018



# Newsletter



# PRESIDENT'S MESSAGE

I hope everyone's summer has been going well. I just returned from our summer board meeting in New Orleans that was to plan for the rest of the year's preparations for the WSSA Annual Meeting in February 11–14, 2019. Larry Steckel has received an excellent slate of symposium proposals that will be voted on. There is

substantial interest in our scientific community currently and the proposed symposia appear to be reflective of that. Eric Webster has agreed to help us with local arrangements and he is working with us to create some tours for the area.

Our society sponsored a research workshop for managing dicamba off-target movement on April 16–17, 2018 at the AMA Executive Conference Centers in Arlington, Virginia. WSSA invited a select group of weed scientists, agricultural chemical application specialists, representatives of state agrichemical organizations and regulatory agencies, dicamba registrants, and the U. S. Environmental Protection Agency (EPA) to discuss technical issues related to the off-target movement of dicamba that occurred in 2017 and to identify potential research objectives for 2018.

The research workshop agenda was divided into four topic areas: I) Nontarget impacts; II) Volatility; III) Application; and IV) Formulation. None of this would have been possible without the efforts of Lee Van Wychen, Bob Nichols, Greg Kruger and Phil Banks. Phil acted as our facilitator for the meeting and did a great job keeping the group focused. A report has been drafted by the writing team that included the aforementioned group to capture what occurred in the workshop come up with recommendations and action items that will improve our understanding and management of this and similar technology going forward. The report has been reviewed by workshop participants and our Formulations, Adjuvants, and Application Technology Committee as well as the Environmental Aspects of Weed Management Committee. The final report and CONTINUED on pg 2 >>>

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presentations can be found at http://wssa.net/2018/07/wssa-dicamba-research-workshop-presentations/.

Donn Shilling has been active in his role as NIFA Fellow and has decided to step down from that position. A search committee has been formed and nominees are being screened for his replacement. We hope to have our next NIFA Fellow named in the next month. This a highly meaningful position for our society in connecting with the key issues that affect our discipline. Donn's work is paying dividends and we look forward to building on the great foundation that he has built.

Several exciting activities are ongoing. Herbicide resistance continues to be a primary issue for our society. Greg Kruger has worked to provide another herbicide resistance tour this year with the goal of helping EPA personnel to improve understanding of the complex problems associated with herbicide resistance. The tour is scheduled for late July currently. Also, our first set of WSSA Travel Enrichment Experience Scholarships for Graduate Student have been reviewed by our committee and we have an excellent slate of students selected. We received nearly 20 applications from all over the country from tremendously talented M.S. and Ph.D. students. By reviewing these materials, it is obvious that we are going to be surrounded by scientific talent to help solve the problems of our discipline. The Travel Enrichment Experience (TEE) will provide an opportunity for WSSA graduate students to participate in a five day, four night educational experience with professionals in a different WSSA region.

I hope to see all of you at the meeting in New Orleans. I welcome your input on any weed science and WSSA-related issues at any time. Please don't hesitate to contact me, Eric Gustafson, Lee Van Wychen, or any of the board members if you have questions, suggestions, or concerns regarding WSSA business or activities.

> Scott Senseman President, WSSA

## **WSSA Contacts**

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Cambridge University Press Andrea Giannini, Publishing Editor (212) 337-5080 agiannini@cambridge.org 2019 Annual Meeting Larry Steckel, President-Elect Isteckel@utk.edu

### WSSA FUTURE MEETING SITES AND DATES

Feb. 11–14, 2019 59th Annual Meeting Sheraton New Orleans Hotel New Orleans, Louisiana Larry Steckel, Chair Email: Isteckel@utk.edu www.wssa.net



#### THINK NEWSLETTER Deadline for October issue

September 1, 2018

SEND NEWSLETTER MATERIAL TO: Carl Libbey 225 S. 10th Street Mount Vernon, WA 98274 newsletter@wssa.net Phone: (360) 708-5543

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# **WSSA PUBLICATIONS NEWS**

*New impact factors* Latest (2017) journal impact factors were published in June by Clarivate Analytics. All WSSA journals increased their impact factors:

Weed Science: 2.044, up from 1.862 in 2016.

In the Agronomy category, *Weed Science* is 20 out of 87 journals, and in Plant Sciences it is 76 out of 222 journals.

Weed Technology: 1.246, up from 0.880 in 2016.

In the Agronomy category, *Weed Technology* is 39 of 87 journals, and in Plant Sciences it is 125 out of 222 journals.

Invasive Plant Science and Management: 1.081, up from 0.952 in 2016.

In Plant Sciences, IPSM is 143 out of 222 journals.

Congratulations and thank you to all our hard-working journal editors and associate editors.

#### **Sharing journal articles**

WSSA journals are participating in a pilot project with Cambridge University Press to make published articles available to non-subscribers in a read-only format. To share any article, go to the journal website on Cambridge Core and click on the article title. This opens click-through options below the abstract – click on the "Shareable link" box. You don't have to log in as a WSSA member or journal subscriber to do this.

Unless a paper was published open access, it is a breach of copyright to post downloadable PDFs of articles published in WSSA journals. This includes posting PDFs of your own papers on personal websites or sites such as ResearchGate. You can post an abstract on personal sites with a link to the published article on Cambridge Core. We hope this shareable link option will allow WSSA journal authors and readers to share article content more freely without compromising copyright. Currently you can only share articles published in 2016 or later. CUP is seeking feedback on the pilot before extending it to earlier archived material. I'd be happy to pass on your comments. E-mail me at sarah.ward@colostate.edu.

#### Changes at CUP

Our Publishing Editor in the Cambridge University Press New York office, Anna Hofvander, has moved across the Hudson to Wiley-Blackwell. Anna shepherded the WSSA journals through the transition from Allen Press and the first year of publishing with CUP, and we wish her well in her new position. Our new Publishing Editor in New York is Andrea Giannini, who was previously with the Springer Nature publishing group.

> Sarah Ward Director of Publications Weed Science Society of America

Send Newsletter material to: Carl Libbey 225 S. 10th Street Mount Vernon, WA 98274 newsletter@wssa.net

THINK NEWSLETTER Deadline for October issue September 1, 2018

# WASHINGTON REPORT by Lee Van Wychen, Director of Science Policy

#### WSSA HOLDS **RESEARCH WORKSHOPS** FOR MANAGING DICAMBA **OFF-TARGET MOVEMENT**

The Weed Science Society of America (WSSA) sponsored a research workshop on off-target movement of dicamba on April 16-17, 2018 in Arlington, Virginia. WSSA invited a broad group of subject experts including weed scientists, state and federal regulators, application technology specialists, and representatives of dicamba registrants to discuss technical issues related to the off-target movement of dicamba observed and reported in 2016 and 2017, and to identify potential research objectives. The research workshop agenda was divided into four topic areas: I) Nontarget impacts; II) Volatility; III) Application; and IV) Formulation. Within each topic area, presentations were made to provide an overview and to identify information that was not known and data gaps to be addressed going forward. Following the presentations, discussion was facilitated among participants to identify areas of concern and research questions that were subsequently ranked in order of importance. Following this compilation, suggested action items within each topic area were identified and included the following:

- Compile a comprehensive account of areas planted in dicamba-resistant crop cultivars by county, and quantities of all formulations of dicamba sold at minimum by state.
- Relate reported damage complaints to terrain and weather conditions.
- Improve deficiencies with herbicide labels to address: 1) lack of uniformity in label organization; 2) difficulty in finding and interpreting

use instructions; 3) names of dicamba sensitive crops, landscape and native plants, and trees;

4) "neighboring distance" for sensitive crops; 5) descriptions of conditions leading to atmospheric inversions to protect applicators and neighbors.

- Coordinate applicator training such that all trainers present the same detailed message.
- Perform research to better characterize the potential volatility of new herbicide formulations.
- Perform research to better determine: 1) dose vs. damage relationships for key crops; 2) how to protect growers, property owners, and the public from off-target movement; and 3) modes of dicamba movement that are not currently accounted for.

There was sentiment from the group that the widespread non-target movement of dicamba was egregious and resulted in damage to crops, private properties, and native vegetation. Although amelioration of this situation was partly outside of research, attribution of liability should be addressed by appropriate authorities, particularly for horticultural growers who are suffering heavy financial losses. More funding for public research is needed. Concern was expressed that USDA-ARS and USDA-NIFA were not funding the type of research needed to manage off-target pesticide movement. The full report is available at:

www.wssa.net

#### HOUSE AND SENATE ON TRACK WITH FY 2019 FEDERAL BUDGET

After a bipartisan budget agreement this spring that set spending limits for FY 2018 and FY 2019 above the

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Selected Discretionary Appropriations Accounts							
PROGRAM	2016 Final	2017 Final	2018 Final	FY 2019 House	FY 2019 Senate		
	(Millions of Dollars)						
USDA-NIFA	1326	1363	1407	1447	1423		
Hatch Act (Exp. Stations)	244	244	244	259	244		
Smith-Lever 3(b) & (c)	300	300	300	315	300		
AFRI competitive grants	350	375	400	415	405		
IR-4	11.9	11.9	11.9	11.9	11.9		
Crop Protection & Pest Mang't	17.2	20	20	20	20		
USDA-ARS	1143	1170	1203	1259	1301		
USDA-ERS	85	87	87	87	87		
USDA-NASS	168	171	192	174	175		
USDA-APHIS	894	946	982	998	1000		
USDA-NRCS	850	864	874	890	879		
Army Corp of Engineers							
Aquatic Plant Control	4	4	5	0	5		
Flowering Rush Control	n/a	n/a	1	0	1		
Watercraft Inspection	4	5	5	6	6		
Great Lakes Restoration	300	300	300	300	300		
National Sea Grant Program	64	63	65	68.5	71		

#### Selected Discretionary Appropriations Accounts

#### WASHINGTON REPORT CONTINUED from pg 4

sequestration caps Congress self-imposed in 2013, both the House and Senate are on track to move all 12 of their spending bills out of committee by the August recess. In addition, the Senate said it will stay in DC during most of their five-week August recess to work on appropriations bills among other things. Programs affecting weed science research and management are in decent shape. In the House ag appropriations bill, USDA agricultural research programs (ARS, NIFA, ERS and NASS) are funded at \$3.101 billion - \$72 million above FY 2018. ARS is slated for a \$56 million and \$98 million increase above FY 2018 in the House and Senate, respectively. In addition, House and Senate Appropriators both rejected the White House proposal to close 20 ARS research facilities. AFRI is marked up \$15 million in the House and \$5 million in the Senate, compared to FY 2018. Both the Hatch Act (Experiment Stations) and Smith-Lever 3b & c (Extension) capacity funds received a \$15 million increase in the House version of the ag appropriations bill, which is the first time since 2013 those funding lines were increased. Unfortunately, the Senate held those funding lines the same as FY 2018. One other disappointment was that neither the House nor Senate did not provide an increase for the IR-4 Project funding, which has been stuck at \$11.9 million since at least 2010.

#### HOUSE AND SENATE PASS TWO DIFFERENT VERSIONS OF A FARM BILL

The House passed their version of the Farm Bill on June 21 by a vote of 213–211, after voting it down on their first attempt to pass it on May 18. On June 27, the full Senate was able to advance its version of a Farm Bill on a strong bipartisan vote of 86–11 on their first attempt. There are many good weed science things in the House bill regarding regulatory reforms that are not in the Senate bill, which includes a legislative fix for the duplicative National Pollutant Discharge Elimination System (NPDES) program permits, a legislative repeal of the 2015 Waters of the United States (WOTUS) rule, legislative guidance to streamline the FIFRA-ESA consultation process on endangered species, and reauthorization of the Pesticide Registration Improvement Act (PRIA).

Both the House and the Senate Farm Bill authorize a new \$5 million per year grant program for research equipment and reauthorize the Agriculture and Food Research Initiative (AFRI), Specialty Crop Research Initiative (SCRI), and the Organic Agriculture and Extension Initiative (OREI). Annual authorized funding for AFRI and SCRI remain unchanged, while the House increased OREI by \$10 million per year and the Senate increased OREI by \$30 million per year over the current authorization of \$20 million per year. The House bill does not reauthorize mandatory funding for the Foundation for Food and Agriculture Research (FFAR), which was created in the 2014 Farm Bill, but the Senate Farm Bill does include FFAR reauthorization language. The conference negotiations between the House and the Senate will get underway after the July 4th recess to try and iron out all the differences between the two bills. The bottom line is that it will have to be a bipartisan bill to get 60 votes in the Senate.

#### WSSA, ESA, APLU HIGHLIGHT BENEFITS OF FEDERAL FUNDING FOR AIPM PROGRAMS

On May 10, I participated in a luncheon briefing on Capitol Hill titled "Protecting American Coffee, Wine, and Baseball Bats through Areawide Integrated Pest Management (AIPM)." The event was sponsored and organized by the Entomological Society of America (ESA), WSSA and the Association of Public and Land-grant Universities (APLU). Damage from invasive pests cost the U.S. billions of dollars every year and pose a threat to our agricultural and commercial sectors as well as our national defense. The briefing discussed how AIPM can be deployed to save money and resources while managing pests across a range of ecosystems. The briefing was lead off by Rep. Ted Yoho (R-FL), a veterinarian and House Ag Committee member, who is a co-sponsor of the AIPM Act of 2018 (H.R. 5411) along with Rep. Tulsi Gabbard (D-HI).

#### ANDREW WHEELER CONFIRMED AS NO. 2 OFFICIAL AT EPA

The Senate confirmed Andrew Wheeler as EPA Deputy Administrator on April 12 by a 53 – 45 vote. Wheeler is a native of Ohio and received a



BA in English and in Biology from Case Western Reserve University, a JD from Washington University in St. Louis School of Law, and an MBA from George Mason University School of Management. His first job was with EPA between 1991-1995 working on toxic chemical and pollution prevention issues. He is a long time Senate staffer having worked for Sen. George Voinovich (R-OH), Sen. Jim Inhofe (R-OK), and the Senate Environment and Public Works Committee. Wheeler most recently served as Senior VP for Faegre Baker Daniels Consulting, a national advisory and advocacy firm dealing with energy and natural resources practice.

#### BARBRE APPOINTED AS ADMINISTRATOR OF USDA RISK MANAGEMENT AGENCY

On April 19, USDA Secretary Perdue CONTINUED on pg 6 >>

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appointed Martin Barbre as Administrator of USDA's Risk Management Agency (RMA), which oversees the nation's federal crop insurance



programs. Barbre owns and operates Chestin Farms in Carmi, Illinois and grows 6,000 acres of corn, soybeans, wheat, grain sorghum, and alfalfa, as well as specialty crops such as seed soybeans and white corn. He is a past president of the National Corn Growers Association Corn Board and a member of the Illinois Corn Growers Association (ICGA), having served on the board of directors from 1995 to 2006. Barbre served as vice president of the ICGA in 2003 and president in 2004. He graduated from Southeastern Illinois College in 1974 with a degree in Ag Business.

#### FORDYCE APPOINTED AS ADMINISTRATOR OF USDA FARM SERVICE AGENCY

On May 11, USDA Secretary Perdue appointed Richard Fordyce to serve as Administrator of the Farm Service Agency (FSA), which supports



ag production through a network of over 2,100 county and 50 state offices. Fordyce and his wife Renee operate a row crop and commercial cattle operation in Bethany, Missouri. He most recently served as State Executive Director for FSA in Missouri. Prior to that, Fordyce served as the director of the Missouri Department of Agriculture from 2013 to 2017. He also served 11 years on the United Soybean Board and 8 years as chairman of Missouri's Soil & Water Districts Commission.

# SHANOWER WILL BE NIFA'S ACTING DIRECTOR

USDA's National Institute of Food and Agriculture (NIFA) was created by the 2008 Farm Bill to replace the Cooperative State Research, Education and Extension Service. As part of that legislation, the Director for NIFA is appointed by the President for a six-year term, which is unique to the Agency. Dr. Sonny Ramaswamy was the first NIFA Director to serve the full six-year term, which ended on May 4, 2018. In the interim, Dr. Thomas Shanower will be NIFA's Acting Director. An entomologist with USDA-ARS, Shanower served as the Center Director for ARS' Center for Grain and Animal Health Research in Manhattan, Kansas from 2007 to 2015.

USDA-NIFA Weblinks:

- 2017 Annual Report recently released.
- NIFA's Data Gateway includes funding by Congressional District.
- Request for Application (RFA) Schedule – updated biweekly.
- Agriculture and Food Research Initiative (AFRI) Funded Projects Webpage -- now arranged by state, with the three most recent fiscal years awarded (2015-2017) listed.
- Peer Review Process for NIFA Competitive Grant Applications

#### SCIENCE SPECIAL ISSUE: "THE RISE OF RESISTANCE"

Available at: http://science.science mag.org/content/360/6390.

"Today, we find ourselves at the nexus of an alarming acceleration of resistance to antibiotics, insecticides, and herbicides. Through chemical misuse, resistance also brings widespread collateral damage to natural, social, and economic systems. Evolution will always circumvent head-on attack by new biocides, and we may not be able to invent all the new products that we need. We must therefore harness evolutionary approaches to find smarter ways to minimize the erosion of chemical susceptibility."

In the first article of the special issue, "Wicked evolution: Can we address the sociobiological dilemma of pesticide resistance?", Gould et al. state "Breakthroughs in chemistry and molecular biology may provide many new pesticides and novel methods for pest control, but there is also a considerable chance that the evolution of pest resistance will outpace human innovation." Gould et al. go on "To avoid this outcome, we must address the mix of ecological, genetic, economic, and sociopolitical factors that prevent implementation of sustainable pest management practices."

#### AG RESEARCH SPENDING FALLS IN HIGH-INCOME COUNTRIES

Public spending on agricultural research and development by 31 highincome countries including the U.S. peaked in 2009, then fell by an average of 1.5 percent annually over the following four years, according to a new analysis conducted by the USDA Economic Research Service (ERS).

Although the U.S. continues to spend the most of any high-income country on agricultural R&D, its share of the total fell from 35 percent in 1960 to less than 25 percent by 2013. As countries become richer, the share of their public R&D budget devoted to agriculture declines, USDA-ERS found, in part because the farm sector's contribution to the economy also drops off. In the U.S. in 2014, commodity checkoffs raised about \$1 billion through mandatory assessments on farm goods. But the majority of that money was used for market promotion, such as developing new uses or enhancing health and safety attributes of food products, rather than research. Other private investment in R&D of

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#### WASHINGTON REPORT CONTINUED from pg 6

farm needs, such as by seed companies, has grown from \$2.1 billion in 1970 to \$6.1 billion in 2013. (See chart, right.)

#### LABELING VICTORY FOR GLYPHOSATE

On June 12, a federal judge kept in place his injunction that prevents California regulators from requiring warning labels stating that glyphosate may be linked to cancer. A 10-page decision issued by U.S. District Judge William B. Shubb for the Eastern District of California concludes that the state's attorney general did not show that the court had made any mistakes with its earlier decision. The judge also said that new research the attorney general provided by the International Agency for Research on Cancer (IARC) did not provide enough proof that glyphosate causes cancer. "The overwhelming majority of agencies that have examined glyphosate have determined it is not a cancer risk," the judge wrote.

#### WEED-ZAPPING LASER ROBOT

The Hyperweeder robot will supposedly use machine vision and pattern recognition software to recognize up to 26 weed species. https://www.dw.com/en/couldagricultural-robots-replaceglyphosate/a-43964752

# UPDATED STATE NOXIOUS WEED SEED LISTINGS FOR STATES

The USDA Agricultural Marketing Service (AMS) enforces interstate commerce provisions of the Federal Seed Act (FSA) and provides seed testing service under the Agricultural Marketing Act. The FSA regulates the interstate shipment of agricultural and vegetable seeds. The FSA requires that seed shipped in interstate commerce be labeled with information that allows seed buyers to make informed Agriculture's share of total public R&D spending, 2009-13 average



choices. Seed labeling information and advertisements pertaining to the seed must be truthful. The FSA helps promote uniformity among State laws and fair competition within the seed trade. USDA AMS recently updated the list of prohibited and restricted noxious weed seeds for each state. The list can be accessed at:

https://www.ams.usda.gov/sites/ default/files/media/State NoxiousWeedsSeedList.pdf

#### WILD SPOTTER: MAPPING INVASIVES IN AMERICA'S WILD PLACES

A new nationwide citizen science volunteer capacity-building program called Wild Spotter (https://wildspotter.org) has been launched that is designed to help locate and map aquatic and terrestrial invasive species in Wilderness Areas, Wild & Scenic Rivers, and other wild places across the 193 million-acre National Forest System. This new program engages and empowers the public, local communities, states, tribes, and many other groups to help the Forest Service confront the threats from harmful exotic plants, animals, and pathogens that invade America's beautiful and economically important wild places. The Wild Spotter program provides the tools these volunteers need to help locate, quantify, map, and report invasive species infestations in a simple and effective manner, while raising public awareness about invasive species and promoting collaborations across the landscape.

Lee Van Wychen, Ph.D. Executive Director of Science Policy National and Regional Weed Science Societies 5720 Glenmullin Pl Alexandria, VA 22303 Lee.VanWychen@wssa.net Phone: 202-746-4686

### Update from the National Stakeholder Team for Pesticide Safety Education Program Funding

The National Stakeholder Team for Pesticide Safety Education Program (PSEP) Funding (nst-psep.net) was formed in October 2012 to strengthen and support the 50 state landgrant university PSEPs. These programs serve a vital need by educating growers, professional applicators, the general public, and other educators (e.g. county agents and Master Gardeners.) Team members represent government agencies, universities, industry, professional societies and others.

The team's projects have been diverse, involved directly or indirectly with strengthening PSEPs. The largest undertaking, the PSEP Improvement and Modernization Initiative ('PSEP-IMI'), committed over \$1.8M raised from registrants to various projects designed to strengthen 25 of the most at-risk PSEPs ('Goal 1'). Goal 1 has brought together diverse stakeholders to assess funding opportunities and overcome obstacles within each state. Since 2014, 50–70 members of the National Stakeholder Team have been involved each year in implementation or support of Goal 1, and many more beyond the team (state regulatory agencies, Extension administrators, state stakeholder teams) are also working on Goal 1.

More than half of Goal 1 states have already succeeded in strengthening their programs and achieving significant ongoing financial stability. One example is the University of Georgia program.

When Mickey Taylor took the job to tackle Goal 1 for Georgia in 2014, the PSEP had virtually no time commit-

ment or budget, and manuals were sold at cost with no inventory records or online presence. Mickey developed a PSEP website, spearheaded development of a college online publication store, and added an on-line private (grower) applicator training program, study guide courses for commercial applicators, and a Georgia Competent Applicators of Pesticides Program (for homeowners, Master Gardeners and public service employees who do not need to be certified.) He has modernized the sale and inventory control of manuals, has updated several very out-of-date category manuals, is preparing to distribute several dozen 10 minute recorded 'Pesticide Safety Briefs', and is developing additional educational materials for use by his state's county agents. Mickey now has financial support from the university, significant publication sales and online training access fees, and valued cooperative working relationships with the state's regulatory agency and Extension agents. This diversified PSEP serves all the citizens of Georgia.

Many organizations have become much more aware of the purpose and value of the land-grant university PSEPs through the efforts of the National Stakeholder Team. Everyone benefits from the significant educational impacts of robust PSEPs in protecting human health and the environment. Contact Jim Burnette or Carol Somody to join the National Stakeholder Team for PSEP Funding or visit the Team's website for more information.

By Jim Burnette and Carol Somody



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## CALENDAR OF UPCOMING EVENTS -

DATE	EVENT	LOCATION	CONTACT
November 19–22, 2018	Canadian Weed Science Society Annual Meeting (CWSS)	Marriott on the Falls Niagara Falls, Ontario	www.weedscience.ca
December 3–6, 2018	North Central Weed Science Society Annual Meeting (NCWSS)	Hyatt Regency Hotel Milwaukee, Wisconsin	www.ncwss.org
January 7–10, 2019	Northeastern Weed Science Annual Meeting (NEWSS)	Delta Hotels Baltimore, Maryland	www.newss.org
February 3–7, 2019	Southern Weed Science Society Annual Meeting (SWSS)	Renaissance Oklahoma City Convention Center Hotel Oklahoma City, Oklahoma	WWW.SWSS.WS
February 11-14, 2019	Weed Science Society of America Annual Meeting (WSSA)	Sheraton New Orleans Hotel New Orleans, Louisiana	www.wssa.net
March 11–14, 2019	Western Society of Weed Science Annual Meeting (WSWS)	Hyatt Regency Downtown Denver Denver, Colorado	www.wsweedscience.org
July 13–17, 2019	Aquatic Plant Management Society Annual Meeting (APMS)	Hilton Double Tree Mission Valley San Diego, California	www.apms.org

Additional Weed Science Meetings and Events can be found at http://wssa.net/meeting/calendar-of-meetings/