



PRESIDENT'S MESSAGE

It is hard to believe we met on the island of Maui just four months ago for the 2020 Joint WSSA/WSWS Annual Conference. I miss that time....

Hopefully, you are all maintaining some level of normal in these strange times. WSSA officers and committee members are conducting business as normal as much as possible. Dr. Anita Dille, your President Elect is working at organizing the 2021 annual meeting. She has a slate of symposia that the Board will discuss in the near future. The WSSA Student Travel Enrichment Experience (TEE) has been delayed but is moving forward for now. Applications were due July 1. Dr. Stanley Culpepper, WSSA VP, has been working hard at filling vacant positions on our committees that do much of the work to keep things moving. The Board of Directors will meet next week (before you receive this newsletter, but too late for my article) via ZOOM on July 9 and 10 and will discuss a number of things including how to move forward with our annual conference. As you know, many conferences that take place before ours have either cancelled or decided to go virtual. We plan to survey the membership in the very near future to help determine where we are headed. I did a quick and limited survey in late June with our Board of Directors as well as the WSSA Affiliated Weed Science Society Presidents along with a few others. I hope these answers help communicate to our members what everyone is experiencing during this pandemic. The survey group included 13 academics, three industry employees, two graduate students, one private sector consultant, one USDA-ARS scientist, and two dedicated WSSA personnel (n=26). I asked eight questions and here are some take home points:

1. **How has COVID-19 impacted your professional life?** There were some common themes.
 - a. Conference calls are the everyday norm.
 - b. My job has become a never-ending ZOOM meeting, and more phone, texting, and emails.
 - c. On calls most of the day (sitting).
 - d. More administrative activities to ensure the health and well-being of my

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Your Help is Needed!
COVID-19 Snapshot Poll
 (see inside, page 6)

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- employees; have to focus on the details of keeping people safe, while trying to move the group forward as best as possible.
- e. Cancelling of numerous state and local meetings.
 - f. Using lots of social media to communicate with clientele, posting more information on Facebook.
 - g. Lots of restrictions in terms of field research and access to labs and greenhouses.
 - h. Having to watch the kids has reduced productivity.
 - i. Working from home.
 - j. Reduced program activities.
 - k. Concern as a new extension faculty member in losing a year of productivity and establishing relationships with the ag community.
 - l. Writing more.
 - m. Same amount of work with less people and need permission for everything.
 - n. As a grad student, I had to hold-off on starting some research and are dealing with social distancing in vehicles, the field, etc.; by myself, everything takes longer than under "normal" conditions.
 - o. Dealing with the uncertainty in the economy and how federal research funding will fare as Congress deals with a massive federal spending deficit.
2. **Has agriculture in your area been impacted by the pandemic?**
- a. Livestock agriculture seems to have taken the biggest hit, meat processing plants in particular.
 - b. Dairy farms have not been well for a while and this has made it worse – sure you heard about dumping milk early on.
 - c. Fresh market produce has been a problem because of restaurant closures and decreased demand.
 - d. Labor shortages and H2A and H2B employee travel into in the US has been a problem.
 - e. Production of commodity row crops not impacted much, although prices were already low and have relied on govt. support for the last two years.
 - f. Overall, I think ag has done ok relative to other sectors of the economy.
 - g. A silver lining — seems like home and garden outlets have been doing great business; lots more gardening including growing your own food.

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2021 Annual Meeting

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WSSA FUTURE MEETING SITES AND DATES

February 15–18, 2021

61st Annual Meeting WSSA

Hyatt Regency San Antonio

Riverwalk

San Antonio, Texas

Anita Dille, Program Chair

www.wssa.net

WSSA HOME PAGE

ACCESSED AT:

www.wssa.net

THINK NEWSLETTER

Deadline for October issue

September 1, 2020

SEND NEWSLETTER

MATERIAL TO:

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WSSA NEWSLETTER

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PRESIDENT'S MESSAGE CONTINUED from pg 2

3. What work-related restrictions are you dealing with this summer and when do you expect them to be relaxed?

- a. Travel ban, no face-to-face.
- b. They are getting relaxed in phases and every activity outside of "home office" requires approval.
- c. Travel (driving only, air travel is not permitted under any circumstance) is not allowed without approval; only one person per car.
- d. We have to wear masks at work, maintain 6 feet isolation from others while working, sterilize surfaces at the end of the work shift, avoid groups larger than 10 at work.
- e. We are to work from home, our research capacity is about 35%, and we will teach online.
- f. Any out of state travel must be approved by administration through September.
- g. Any travel more than 50 miles out of state when one comes back expected to self-isolate for 14 days.
- h. We cannot travel in the same vehicle as other lab-mates, unless we happen to live together.
- i. All field and lab/greenhouse projects need pre-approval, daily health check-ins, restricted access to university sites.
- j. Outdoor field day attendance is possible but must be less than 12 people, with masks and social distanced.

4. If you are in academia, what is your university leadership telling you about students returning in the fall?

- a. Anticipate normal or early return in August; expect more classes be taught online; eliminate fall break and end semester after Thanksgiving break (start early and end early and no fall break).
- b. We will have reduced student capacity in the classroom (maybe 50%) or less than 50 students.
- c. Larger classes will be held via ZOOM.
- d. The goal is for about 50% of courses to be online, 25% face to face, and 25% hybrid; following Thanksgiving, classes will go all online for the last two weeks and final exams.
- e. Some schools are planning on students returning as normal, but still lots to figure out.

5. What is the status of other professional conferences/workshops you participate with in fall (2020) or winter (2021)?

- a. All cancelled ☹️.
- b. Everything has been cancelled, postponed or converted to a virtual format.
- c. Everything on my radar has been cancelled through October. The meetings from Oct - winter that have not been cancelled are all "closely monitoring the situation."
- d. All is still up in the air.

- e. All university extension meetings are likely to be conducted virtually; pretty much no face-to-face meetings approved as of now.
- f. State Fair and most fairs and university camps are cancelled in summer and fall.
- g. APS is holding their annual meeting virtually in August.
- h. No decisions made yet about winter of 2021.

6. Assuming we are able to host our conference in Feb., are you planning to attend the 2021 WSSA Annual meeting in San Antonio? Although the responses were less than confident, here is where this group currently stands. Yes (13), No (4), Uncertain (5). Here are some comments:

- a. Yes, given university travel restrictions have been lifted, I plan on attending.
- b. Yes, absolutely.
- c. Wouldn't miss it.
- d. I plan to attend if I can get travel approval and if the overall situation is better than it is currently.
- e. If I do not have to self-isolate for 14 days, otherwise I probably will not attend.
- f. It will depend on what the pandemic looks like closer to meeting time and if my university will even allow domestic work-related travel.
- g. I will be there as long as the University lets me travel out of state and does not require me to be quarantined upon returning.
- h. No, I will not be traveling by plane for the foreseeable future; I hope that WSSA will include a remote option.
- i. I am leaning towards no at this point because of uncertainty.
- j. That was my intent, but it looks like I won't; my university won't allow me; my wife won't allow me; this virus is too potent to take lightly.

7. If we can't hold an in-person conference in Feb. due to a COVID-19 resurgence, should we cancel the annual meeting or host something virtually? To summarize:

- Virtual (12), Cancel (6), Uncertain (4). Comments:
- a. Cancel.
 - b. Virtual.
 - c. I would recommend hosting something virtually that also includes local in-person clusters. The local clusters (e.g., weed scientists at a given university, or in a state) could participate together in the online meeting while maintaining social distancing.
 - d. Meet virtually but reduce the meeting in size and duration. Maybe just symposia.
 - e. It would hurt our students badly, so we must do something!

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- f. Something is better than nothing.
 - g. Don't cancel, go virtual.
 - h. I would support holding the annual meeting virtually with the hope of keeping "momentum" going and being able to go back to maybe a blended (in person and virtual) annual meeting in 2022.
8. **Anything else you would like to share about how the COVID-19 pandemic has affected you?**
- a. It has affected mental health, loss of work/life balance.
 - b. My stress level has increased.
 - c. I've found that I work more efficiently from home.
 - d. Learning how to "home school" my 1st and 3rd grader.
 - e. Brought staff and family closer together.
 - f. I have had much more time with my family which is wonderful; there is always a positive!
 - g. We have done a lot of landscaping projects in the yard.
 - h. Gave me time to reflect a bit.

NIFA Fellow, EPA Liaison, and CAST Representative Updates.

We have three very important volunteer positions that help keep WSSA connected to important issues and groups that impact weed science. Here is a quick update.

Dr. Jim Kells from Michigan State University took over the USDA National Institute of Food and Agriculture (NIFA) Fellow position last year. Jim started this role right about the same time as it was announced that most of the USDA NIFA folks would move from Washington, D.C. to Kansas City. This move resulted in the loss of many agency personnel and it has been in the process of rebuilding. And then COVID-19 hit. Needless to say, Jim is a bit frustrated, but he's optimistic that things will improve soon. Here is a summary communicated by him of recent events and activities. Has focused on NIFA personnel changes in this communication.

1. J. Scott Angle, NIFA Director, has been named [Vice President for the University of Florida College of Agriculture and Life Sciences](#). A search for the next Director has been initiated. The position will be based in Washington, D.C.
2. Vijay Nandula has been appointed as a National Program Leader in the Division of Plant Systems – Protection. Vijay is a weed scientist formerly with USDA-ARS.
3. Mathieu Ngouajio is a USDA-NIFA National Science Liaison and is based in Washington, D.C. He was previously a National Program

Leader in the Division of Plant Systems – Protection.

4. Mike Fritzner is now Acting Deputy Director for the Institute of Food Production and Sustainability, which oversees the Division of Plant Systems – Protection. The Acting Division Director of the Division of Plant Systems – Protection is now Ann Lichens-Park, a plant pathologist and Fellow of American Phytopathological Society.
5. Parag Chitnes is USDA-NIFA Associate Director for Programs and is based in Kansas City.
6. NIFA continues to actively recruit for numerous positions to rebuild from staff losses related to the transfer to Kansas City.

Dr. Greg Kruger, University of Nebraska became our EPA Liaison after Dr. Mike Barrett stepped down in 2017. Greg has accomplished a number of things in his first 1+ years and then came the government shutdown in 2018/2019 and now COVID-19. Despite these challenges, Greg organized several things in 2019 including a Drone workshop for EPA staff in April that included a number of our WSSA colleagues. In late July, he met with USDA-OPMP and discussed drift and a survey on pesticide application in addition to visiting with EPA. In August, he helped organize an ESA/WSSA Science Policy Tour. He worked on the steering committee and helped with local arrangements on the first part of the trip which was a four-day adventure that was based in Omaha, NE. In October, he organized a semi-

nar for EPA on the effect of Droplet Size on the performance of herbicides. In January 2020, just prior to COVID-19 breaking and our annual meeting in Hawaii, he organized a day-long dicamba research update for EPA. Again, a number WSSA scientists participated providing their expertise on dicamba off-site movement. Since our annual meeting, Greg and others including Drs. Stanley Culpepper and Larry Steckel met with EPA and industry leaders via ZOOM to discuss the idea of developing regional labels for dicamba use in dicamba tolerant crops. The purpose of this discussion was to help prevent misuse of "Special Local Needs" Section 24(c) labels by individual states which typically target additional uses, not more restrictions. These discussions are on-going but of course now with the cancellation order for the use of dicamba in dicamba-tolerant crops, much more is up in the air on where we are headed with this technology. Finally, in May 2020, Greg organized a webinar for EPA that featured Dr. Anita Dille, Kansas State University, on Crop-Weed Competition. Anita presented an hour-long seminar to a very well attended group of EPA folks on why we need to manage weeds to preserve crop yield and quality. Greg is developing a monthly webinar series for EPA based on topics that EPA personnel have suggested. Some of you may be contacted by Greg in the near future asking if you would be willing to participate.

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Finally, Greg is requesting some help from members of our society. The Biological and Economic Analysis Division (BEAD) in EPA's Office of Pesticide Programs calculates the benefit of an herbicide as the difference between what happens when a grower has an herbicide available and what would happen without the herbicide. To determine what growers would do without an herbicide, BEAD attempts to find the most likely way growers would attempt to replace that herbicide in their chemical control strategy. For example, BEAD is seeking more information on what may result from growers switching from a PRE to a POST weed control strategy, or from a POST to a PRE strategy. Supporting literature would also be greatly appreciated. If this is something that you can help Greg with, please let him know.

Finally, Dr. Jill Schroeder is our CAST Representative. She recently retired from the USDA Office of Pest

Management Policy (OPMP) and is an Emeritus Faculty member at New Mexico State University. Jill was WSSA President/Officer, EPA Liaison, and with USDA OPMP in DC. Since 1972, CAST (Council on Agricultural Science and Technology) has provided balanced, credible, science-based information about food and agriculture to policymakers, the media, the private sector, and the public. Jill recommends that members read one of the latest CAST issue papers "Stewardship Challenges for New Pest Management Technologies in Agriculture." A task force was chaired by Dr. David Shaw. The publication can be found at <https://www.cast-science.org/publication/the-need-and-challenge-for-effective-stewardship-of-new-pest-management-technologies-in-agriculture/>. On June 29, the CAST publication "Impacts of COVID-19 on Food and Agricultural Markets" was made available for download from

<https://www.cast-science.org/publications/>. Jill encourages WSSA members to send topic suggestions for future CAST publications. In addition, she is working with the CAST representatives from the other weed science societies to identify topics for future publications as well as ways to encourage society members to submit their thoughts on issues that could be addressed through CAST. The audience for CAST publications includes policymakers, the media, the private sector, and the public.

Please thank these three WSSA volunteers for stepping up and representing the WSSA in these important activities. That is my report for now and I look forward to seeing you all in San Antonio, Texas (or virtually) in 2021.

Bill Curran
President, WSSA

Dr. Vijay Nandula, Research Plant Physiologist in the Crop Production Systems Research Unit, Agricultural Research Service, United States Department of Agriculture, Stoneville, Mississippi will start at a new position as a National Program Leader in the Plant Protection Division, Institute of Food Production and Sustainability, National Institute of Food and Agriculture, USDA, Kansas City, Missouri from June 7, 2020.



**NOW AVAILABLE IN
THE WSSA BOOKSTORE!**

WEED BINGO is a fun game that blends a bit of science with interesting and unusual facts about some of the world's most common and troublesome weeds. Each of the 42 weed cards included in our game includes the common and scientific name of a weed, a photo and a brief description.

WEED BINGO would make a great gift! The games are a fun, educational tool that will help raise awareness of weeds and invasive plants in managed and natural ecosystems.

Each game is \$14.95 + \$5.00 shipping and handling for domestic shipping. To purchase a game, please visit our website:

<https://wssa.memberclicks.net/books>

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Phone: (360) 708-5543**

New Series – Biology of Invasive Plants

A small team has been developing a new, exciting series within the WSSA's *Invasive Plant Science and Management* journal (IPSM), called the **Biology of Invasive Plants** (BoIP). We hope it will attract a lot of interest to the journal. The series is unashamedly modelled somewhat on the *Biology of Canadian Weeds* and *Biology of Australian Weeds* series, but with some attractive additions. As befits the international scope of IPSM, the scope of these accounts is explicitly global. The accounts are intended to help people who are managing the weeds as a clear and present danger, and to also assist those who have to manage international invasion risks. In the latter case, helping these biosecurity agencies to prevent the spread or prepare to manage the emerging threats. To that end, each of these accounts will include a potential distribution model to highlight the future invasion risks, alerting weed managers of the threats that they face. They will also include sections that address the mechanisms of international spread and their management. The series will be published within IPSM, with a longer format than usual, and including a structured appendix where appropriate to describe the potential distribution model. These papers will also include a form of graphical abstract, called "At a glance...".

Please reach out to colleagues who may be in a position to prepare a BoIP account and encourage them to contact the BoIP editors

Non-modellers should not be put off by the requirement for a potential distribution model. They have the choice of drawing on an existing model, teaming-up with a modeller if there is no pre-existing model, or they can follow a simple set of instructions to generate a simple model by following a sim-

ple set of instructions using some software that we will provide. We will also provide a simple template for the maps showing the current known distribution. This will ensure that the maps all have the same professional look and feel.

Please encourage lead authors to assemble an international authorship team

The official announcement will be in the form of an editorial paper in the September issue of IPSM, describing the new series and the format. We have two accounts in the pipeline, one to accompany the announcement (*Pyracantha angustifolia*), and one to follow-up in the last issue this year (*Lycium ferrocissimum*). We are now working on contacting prospective authors to build a pipeline of submissions. We would like to call upon each of you to consider colleagues who may be in a position to prepare a BoIP account (or indeed, preparing one yourself). While the accounts take a significant amount of effort to prepare, they can be extremely rewarding in terms of citations and networking opportunities. They can be especially rewarding for grad students or post-docs in particular, providing direction and a publication outlet for them as they do a literature review to get into a project with a new taxon. Please encourage potential lead authors to consider assembling an international authorship team to tackle an account. This will ensure that the final account has a diverse set of perspectives on biology, ecology and management.

Darren Kriticos (darren.kriticos@csiro.au) and David Clements (clements@twu.ca) have been appointed co-editors of this series. Prospective authors should contact them to check whether a taxon has been assigned to an author already. Please contact Darren and David if you have any questions.



COVID-19 Snapshot Poll: WSSA Meeting in February

To better prepare for our annual meeting that is scheduled for February 15-18, 2021 in San Antonio, Texas, the Board of Directors would appreciate your input.

Please help us out by responding to questions found at this link as soon as possible, but no later than July 31, 2020.



<https://www.surveymonkey.com/r/COVID-19Snapshot>

WASHINGTON REPORT

by Lee Van Wychen, Director of Science Policy

WEED SCIENCE SOCIETIES SUPPORT \$380 MILLION SUPPLEMENTAL APPROPRIATIONS REQUEST FOR AG RESEARCH, EDUCATION AND EXTENSION

The National and Regional Weed Science Societies joined over [270 other national, regional and state organizations](#) to urge Congress to provide \$380 million to our agricultural research, education, and extension system as it considers the next supplemental appropriations package in response to COVID-19.

The Association of Public and Land-Grant Universities (APLU) surveyed administrators of land-grant universities (LGU) and found that 90% of LGUs reported that over 40% of their research portfolio was affected due to COVID-19. In addition, 93% of LGUs need at least four months of USDA National Institute of Food and Agriculture (NIFA) support for research efforts to recover. Major costs associated with both the shutdown and the restarting of research projects account for the funding needs. These needs were not addressed in initial COVID-19 recovery packages.

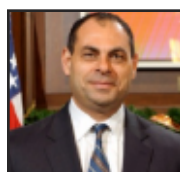
The supplemental appropriations request includes \$300 million of job-saving support for USDA-NIFA capacity and competitive research and is consistent with the research community's broader recommendations across the science agencies. Dramatic disruptions to our research talent pipeline, including the facilities and equipment that support it, will require additional support. The request also supports an \$80 million request for the Cooperative Extension System to meet the direct needs of the public related

to spread of, and recovery from, COVID-19.

EPA OFFICE OF PESTICIDE PROGRAMS STAFF CHANGES



Rick Keigwin (left), EPA's Director of the Office of Pesticide Programs (OPP), will be moving up to the Office of Chemical Safety and Pollution Prevention (OCSPP) to serve as the Acting Deputy Assistant Administrator for Management starting June 22. The EPA's OCSPP oversees both OPP and the Office of Pollution Prevention and Toxics (OPPT). Rick has been with EPA since 1989 and brings a wealth of experience and expertise from his very successful tenure leading OPP, and from previous OPP positions such as the Deputy Office Director for Programs, Director of the Pesticide Re-evaluation Division, Director of the Biological and Economic Analysis Division, and various leadership roles in the Registration Division.



Ed Messina (left) will assume the role of Acting OPP Office Director starting June 22. Ed has been with the EPA since 2006 where he has served in several roles in EPA's Office of Enforcement and Compliance Assurance (OECA) before moving to OCSPP in 2018 to serve as Deputy Director of OPP.

USDA UPDATES BIOTECH REGULATIONS

On May 18, USDA-APHIS published a final rule intended to modernize USDA's biotechnology regu-

lations under the Plant Protection Act. The new rule marks the first comprehensive revision of USDA biotech regulations since they were established in 1986 under the "Coordinated Framework for Regulation of Biotechnology." The final rule amends the regulations regarding the movement (importation, interstate movement, and environmental release) of certain genetically engineered (GE) organisms in response to advances in genetic engineering and APHIS's understanding of the plant pest risk posed by GE organisms. APHIS states that the new rule provides "a clear, predictable, and efficient regulatory pathway for innovators, facilitating the development of genetically engineered organisms that are unlikely to pose plant pest risks."

The new rule, known as the "SECURE" rule (Sustainable, Ecological, Consistent, Uniform, Responsible, Efficient) differs from the previous regulatory framework by focusing on an organism's properties and not on the method used to produce it. APHIS states that this approach enables it to regulate organisms developed using genetic engineering for plant pest risk with greater precision than the previous approach. This method will reduce regulatory burden for developers of organisms that are unlikely to pose plant pest risks and will continue to provide oversight of organisms developed using genetic engineering that pose a plant pest risk.

The new regulatory process for organisms developed using genetic engineering consists of the following steps:

- **Exemptions:** Determine whether

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the plant meets the criteria for an exemption with the option for requesting confirmation of the plant's exempt status. This step will be implemented starting **August 16, 2020**.

- **Regulatory status review (RSR):** Request a RSR to determine if a plant developed using genetic engineering poses a plant pest risk. This step will be implemented for certain crops on April 5, 2021, and will be fully implemented on **October 1, 2021**.
- **Permitting:** Apply for a permit for a regulated organism that does not undergo or pass the RSR. An RSR request may also be submitted for most plants moved under permit. This step will be implemented on **April 5, 2021**.

The final rule is a welcome change for most biotechnology stakeholders. The Biotechnology Industry Organization (BIO) praised the final rule, welcoming the diminished barriers to innovation as sensible and efficient. However, the Center for Food Safety condemned the final rule, noting that under it, "the overwhelming majority of GE plant trials would not have to be reported to USDA, or have their risks analyzed before being allowed to go to market."

One issue the National and Regional Weed Science Societies asked APHIS to address in their proposed rule last year was the issue of asynchronous approval of a herbicide-tolerant crop by APHIS and the concomitant approval by EPA of the herbicide for use on that crop. An example of this occurred when APHIS approved dicamba-tolerant soybeans in 2015, but the concomitant herbicides were not registered by EPA until 2017. However, APHIS cannot legally delay approval of a biotech crop if it does not pose a plant pest risk, nor can EPA "speed up" a registration of a herbicide (especially if they don't have the entire data submission

package). Thus, the recommendation was for registrants to better time their applications so that the herbicide-tolerant crop and its corresponding herbicide are approved during the same crop year.

2020 WOTUS RULE FINALIZED

On April 21, the EPA and the Army Corp of Engineers published their final Navigable Waters Protection Rule that defines which waters are "waters of the United States" (WOTUS). The 2020 WOTUS rule represents the final version of the 2018 draft rule. The 2020 WOTUS rule will go into effect nationwide on June 22, 2020, but 17 states and various environmental groups have already filed suit seeking to challenge the rule.

The 2020 WOTUS rule seeks to provide certainty by explicitly describing those waters or features that it seeks to cover as well as those that are explicitly excluded. The following waters are explicitly covered by the 2020 WOTUS rule:

- Territorial seas and traditional navigable waters,
- Perennial and intermittent tributaries to those waters,
- Lakes, ponds, and impoundments that contribute surface flow to territorial seas and traditional navigable waters, and
- Wetlands adjacent to jurisdictional waters.

The 2020 WOTUS rule also explicitly excludes twelve categories of waters and features from the WOTUS definition, including the following:

- Groundwater, including groundwater drained through subsurface drainage systems,
- Ephemeral streams and features like swales, gullies, and pools that flow only in direct response to precipitation,
- Ditches, including agricultural

ditches, that are not traditional navigable waters and are not constructed in adjacent wetlands and do not relocate a tributary of traditional navigable waters,

- Prior converted cropland, and
- Artificially irrigated areas that would revert to upland if artificial irrigation ceases.

When determining if a water body or feature meets one of the jurisdictional definitions or exclusions, federal agencies will consider the circumstances during a "typical year." This definition will be important in determining the division between an ephemeral stream, which only flows due to precipitation, and a perennial or intermittent stream, which flows seasonally or annually. The 2020 WOTUS rule defines a "typical year" to mean "when precipitation and other climatic variables are within the normal periodic range for the geographic area ... based on a rolling thirty-year period."

Lastly, the explicit exclusion of groundwater is a noteworthy feature of the 2020 WOTUS rule. Just two days after the 2020 WOTUS rule was published, the U.S. Supreme Court ruled in *County of Maui v. Hawaii Wildlife Fund* that discharges into groundwater may fall under the jurisdiction of the Clean Water Act (CWA) to the extent that they represent the "functional equivalent" of a discharge directly into navigable waters. That is to say, according to the Supreme Court, in at least some cases, groundwater will fall under the jurisdiction of the CWA, whereas the 2020 WOTUS rule states that groundwater is completely excluded from CWA jurisdiction. This direct contradiction will need to be further addressed by the EPA and Army Corp of Engineers.

**HARMFUL ALGAL BLOOMS
WEBINAR TARGETS CAPITOL
HILL AND FEDERAL AGENCY
STAFF**

On June 8, Dr. Ken Wagner, Director of Water Resource Services, presented a webinar titled “Slowing the Spread of Harmful Algal Blooms.” Dr. Wagner has a distinguished career of service in water supply protection and lake management including leadership roles with the North American Lake Management Society (NALMS). His presentation summarized the science behind available management techniques – science that has been in large part driven by federal research funding. However, increasing HAB outbreaks in the United States, and globally, highlight the urgent need for continued federal research support and national-level coordination to address both short-term risks and long-term solutions for HABs.

The webinar was part of the [National Coalition for Food and Agricultural Research’s \(NCFAR\) Lunch~N~ Learn Capitol Hill Seminar Series](#) that serves as a forum and a unified voice in support of sustaining and increasing public investment at the national level in food and agricultural research, extension and education. WSSA is a sponsor of the seminar series. I’d also like to thank Dr. Mark Heilman, APMS President, for his leadership in helping organize and coordinate the event as well as serving as the moderator. The webinar was well received and had 200 registrants. [Click here for the recorded webinar.](#)

**RICHARDSON PRESENTS
WEBINAR ON SUCCESSFUL
AQUATIC PLANT MANGEMENT
STRATEGIES DURING NATIONAL
INVASIVE SPECIES AWARENESS
WEEK**

“Slow the spread” is an unexpected catchphrase from this spring due to the

global coronavirus pandemic and was the theme of [National Invasive Species Awareness Week \(NISAW\)](#) that occurred May 16–23, 2020. Dr. Rob Richardson, APMS Past President and chair of WSSA’s Noxious and Invasive Weeds Committee, presented the May 21 webinar titled “Successful Aquatic Plant Management Strategies Across the United States.” The webinar was well attended with over 200 registered for the event. Richardson noted that it’s critical we use integrated approaches with a combination of biological controls, cultural practices, herbicides, mechanical tools, nutrient management and prevention efforts to help stop the spread of invasive aquatic weeds. [Click here for the recorded webinar.](#)

**10 WAYS TO TAKE ACTION AND
“SLOW THE SPREAD” OF
NOXIOUS AND INVASIVE WEEDS**

1. Learn about invasive weeds, especially those found in your region. Your county extension office and the National Invasive Species Information Center are both trusted resources.
2. Clean your hiking boots, waders, boats and trailers, off-road vehicles and other gear to stop invasive weeds from hitching a ride to a new location. Learn more at www.playcleango.org.

3. Avoid dumping aquariums or live bait into waterways. Learn more at www.habitattitude.net.
4. Clean your fishing equipment and don’t dump live bait. Learn more at <http://stopaquaticchitchhikers.org>.
5. Don’t move firewood over long distances. Instead, buy it where you’ll burn it, or gather on site when permitted. Learn more at www.dontmovefirewood.org.
6. Buy forage, hay, mulch and soil that are certified “weed free.” Learn more at www.naisma.org/programs/weed-free-standards.
7. Report new or expanding invasive weed infestations to authorities at www.invasive.org/report.cfm.
8. Ask your local, state and national political representatives to support invasive and noxious weed management efforts.
9. Plant only non-invasive plants in your garden and remove any known invaders.
10. Share your NISAW activities with friends and followers via text message and social media. Don’t forget to use the hashtags #NISAW and #InvasiveSpecies!

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CALENDAR OF UPCOMING EVENTS

| DATE | EVENT | LOCATION | CONTACT |
|------------------------------|---|--------------------------|--|
| November 23–26, 2020 | Canadian Weed Science Society Annual Meeting (CWSS) | Gatineau, Quebec | www.weedscience.ca |
| November 30–December 2, 2020 | North Central Weed Science Society Annual Meeting (NCWSS) | Minneapolis, Minnesota | www.ncwss.org |
| January 4–7, 2021 | Northeastern Weed Science Society Annual Meeting (NEWSS) | Gettysburg, Pennsylvania | www.newss.org |
| January 24–28, 2021 | Southern Weed Science Society Annual Meeting (SWSS) | Knoxville, Tennessee | www.swss.ws |
| February 15–18, 2021 | Weed Science Society of America Annual Meeting (WSSA) | San Antonio, Texas | www.wssa.net |
| March 1–4, 2021 | Western Society of Weed Science Annual Meeting (WSWS) | Boise, Idaho | www.wsweedscience.org |

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



Welcome to HEAR@CSU, a workshop on Herbicide Efficacy, Action and Resistance

This workshop is specially designed for those who need a refresher on how herbicides work. Lectures include all mechanisms of action, how they are used, how they work and how plants have evolved resistance. Other topics include herbicide interactions with plants and soil, crop injury, and non-performance. This workshop will be held August 3-6 on the beautiful campus of Colorado State University in Fort Collins CO.

Website: <https://conferencereg.colostate.edu/HEAR2020>
Contact: Franck Dayan at franck.dayan@colostate.edu

| Monday | Tuesday | Wednesday | Thursday |
|--|--|--|--|
| Morning -Herbicide-plant interactions -Herbicide-soil interactions -ALS inhibitors -PPO inhibitors Afternoon -ACCase inhibitors -VLCFAE inhibitors -Transgenic crops | Morning -Glyphosate -Glufosinate -Synthetic auxins -Mitosis inhibitors Afternoon -Managing resistance -PSI and PSII inhibitors -Bleaching herbicides | Morning -Safeners and adjuvants -Crop injury -Herbicide non-performance Afternoon -Field trip | Morning -Cellulose inhibitors -Aquatic weeds -Novel target sites -Summary |

Speakers



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Colorado State University



Todd Gaines
Colorado State University



Mithila Jugulam
Kansas State University



Scott Nissen
Colorado State University



Christy Sprague
Colorado State University

