



Western Society of Weed Science Newsletter

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FALL 2021

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President's Report - by Sandra McDonald

The Western Society of Weed Science Board of Directors met in a hybrid format (in-person and Zoom) October 19 & 20, 2022 at the Hyatt Regency Newport Beach Hotel in Newport Beach, California. For those of us who participated in-person, it was a great opportunity to visit the hotel and see the facilities. I am looking forward to going somewhere warm in March. We are going to be able to enjoy our Retiree Reception, Awards Luncheon and Business Breakfast outside and our posters will be on display in an open-air pavilion.

Our meeting in 2022 (March 7-10) will be the 75th meeting of the WSWS. It will be in person in Newport Beach. Plan to come help us celebrate 75 years and being in person again. Joel Felix, WSWS Vice President and 2022 Program Chair, and the Planning Committee are working diligently to develop the program. The Planning Committee is building a program that will acknowledge and celebrate our first 75 years and look forward to the future.

The Call for Papers has been sent out and we look forward to receiving many titles. Please submit oral and/or poster presentations; title submission closes December 20, 2021. I am looking forward especially to being able to have the student contests in person. Our WSWS students are the future of the society and I want us to celebrate them at the same time we are honoring our history.

Students, please submit your packets for the Rita Beard Endowment Foundation Scholarship and the Elena Sanchez Memorial WSWS Outstanding Student Scholarship Program awards by December 11, 2021. The application forms are available at [Student Scholarships](#).

My favorite thing about WSWS is our members. All of you inspire me, educate me, challenge me, and often awe me. If you know of a WSWS member who should be recognized for their contributions to weed science or weed management, please nominate them for one of our Distinguished Achievement Awards:

- Outstanding Weed Scientist
- Outstanding Weed Scientist - Early Career
- Weed Manager
- Professional Staff

The deadline for nominations is December 11, 2021. See [WSWS Annual Meeting Awards](#) for specific details.

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WSWS Annual Meeting March 7-10, 2022 Newport Beach, California

President's Report – CONTINUED FROM PAGE 1

We have some other exciting topics at the meeting in March. Both a symposium and a workshop have been approved. The symposium will be Tuesday, March 7, 2022, and open to everyone attending the 75th WSWS Meeting. The symposium topic is "New Technology for Physical Weed Control" and is organized by Steve Fennimore and Marcelo Moretti. The symposium summary is below:

The western United States has so many annual and perennial horticultural crops that lack adequate herbicide coverage, and there is little reason to hope this will change anytime soon. However, the availability of automated technology and strong consumer demands for organic produce, mean that it is both feasible and necessary to increase the practice of weed control without herbicides. Lack of new herbicide chemistries, decreasing herbicide performance due to weed resistance and increasing labor costs are forcing industries to evaluate nonchemical weed control and return to integrated weed control programs. The objective of this symposium is to review the practices and technologies that people are using to manage weeds in our region.

The workshop will be on Thursday afternoon. It is included in the registration for everyone attending our meeting. Other interested people can attend in-person or virtually for a \$50.00 registration fee. The topic is "Weeds and Wildfires in the West" and is organized by Matt Baur. The workshop summary is below:

Management of invasive annual grasses in the West is of paramount importance because these grasses alter the fire ecology locally and regionally thereby shifting the ecological balance to their favor. Here we discuss the ecology of these weeds, policy issues facing land managers, and management options.

The Ad-Hoc History Committee is close to finishing a compilation of the last 25 years of WSWS. They are building it forward from Arnold Appleby's "Western Society of Weed Science, 1938-1992" published in 1993. The WSWS History 1993-2021 will be highlighted in the Education and Regulatory Section with posters and oral presentations.

Meeting Registration is now open; pay attention to the deadlines. Early registration closes on December 20, 2021, although registration remains open through the meeting. Meeting registration information can be found on the WSWS website: [WSWS Annual Meeting Registration](#)

The Board of Directors and I are hoping to honor our history throughout the meeting. If you have any weed-related memorabilia (i.e., "swag" collecting dust in your office), bring it and we will display it and reminisce or wince.

Please do not hesitate to contact me, Joel Felix, Eric Gustafson, or any other member of the WSWS Board of Directors or WSWS Committee Chairs if you have issues or questions related to WSWS.

Have a wonderful holiday season!

Sandra McDonald
WSWS President
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Student Liaison Report – Jodie Crose

Hello WSWS students! I hope each of you are well as we move out of the field season and brace for winter! Here in Sheridan, we have already received over a foot of snow! Last week I had the pleasure of visiting sunny California for the Board of Director's meeting. I can't express enough how excited I am for our meeting in March – the venue is beautiful and the bay is visible from the hotel! I know I look forward to soaking up some vitamin D after a long winter here in Wyoming! Perhaps more exciting is the fact that we will have the ability to meet in person again and enjoy one another's company. Speaking of company, I have been working with a few members in the society to coordinate some new opportunities at our upcoming meeting. During the student luncheon, we will be hearing from the Ad Hoc History committee on the last 25 years of the society's history. Since we will be celebrating the 75th annual meeting of WSWS, the committee and I agreed this would be a great time to better acquaint the students with the history of the society. I'm hoping to have some other exciting opportunities worked out by the time the meeting rolls around so stay tuned!

A few reminders as we anticipate the 2022 annual meeting – as students, you are all qualified to apply for the Elena Sanchez Memorial Outstanding Student Scholarship and the Rita Beard Travel Scholarship. The deadline for the Elena Sanchez scholarship is December 11th. Be on the lookout for information about these from the society. Additionally, the Elena Sanchez awards are fully funded by the student silent auction thus, we are looking for donations of items to have in the silent auction. We appreciate any items that are donated – I know smaller items are usually easier to get on-site. If you have any questions about getting any item on-site in Newport Beach, please reach out and I'll do my best to help you sort it out. We will look forward to having our usual student events including the Student luncheon and Student Night Out. Along with the luncheon, we will be electing our newest Student Liaison Chair-Elect. This is an excellent opportunity to get more involved with a great group of people that want to help you and all of your peers succeed. If you have any questions about the position, please reach out to myself, or Grace Ogden, our current liaison-elect. Additionally, the society strongly encourages student involvement on the various committees that help the society function. There is relatively no added workload for students who decide to get involved and it is a great way to become more integrated with the society and its members.

Finally, as we all prepare for the annual meeting, I would like to clarify a few muddled topics. First, unless some crisis occurs, the 2022 meeting is designated to be an in-person meeting with no hybrid option. We will continue with the traditional student contests available to WSWS attendees including the Student Paper and Student Poster Contest. As a means to resolve some confusion in the past, the judging sheet for the Student Paper Contest has been updated to encourage students to give ample time for questions. The sheet will now be broken down into different point allotments depending on whether the speakers presentation lasts for 11-13, 10-11 or 13-14, or less than 10 or greater than 14 minutes. Five points will be allotted for presentations between 11-13 minutes, 3 for those that are 10-11 or 13-14, and 0 for those less than 10 or greater than 14 minutes. With that, I would like to encourage all of you to sign up for Student Night Out – it's a fun and interesting way to become more acquainted with the society and network for future employment opportunities!

As always, if any of you have questions or concerns, please don't hesitate to reach out to myself or Grace! Also, don't forget to follow the newly created WSWS student Instagram page: [@wsws_students](#). Looking forward to seeing you all in Newport Beach!

Jodie Crose, Student Chair, jcrose@uwyo.edu

Grace Flusche Ogden, Student Chair (elect), gflusche@ostatemail.cokstate.edu

Fellow & Honorary Member Request

Dr. Drew Lyon, Committee Chair

This is a reminder that NOW is your chance to nominate deserving colleagues as a WSWS Fellow or Honorary Member! Fellows of the society are members who have given meritorious service to the Western Society of Weed Science. Honorary members are selected from individuals whose activities have been largely from outside the Western Society of Weed Science, but who have significantly contributed to the field of weed science. For additional details, see the [WSWS Summer 2021 Newsletter](#).

NOMINATIONS FOR FELLOW AND HONORARY MEMBER PACKAGES ARE DUE BY DECEMBER 1, 2021

Send electronic submission to: drew.lyon@wsu.edu

CALENDAR OF EVENTS

North Central Weed Science Society Annual Meeting

Dec. 13 – Dec. 16, 2021
Grand Rapids, Michigan
www.ncwss.org

Northeastern Weed Science Society Annual Meeting

Jan. 3 – 6, 2022
Gettysburg, Pennsylvania
www.newss.org

Southern Weed Science Society Annual Meeting

Jan. 23 - 27, 2022
Austin, Texas
www.swss.ws

Weed Science Society of America and

Canadian Weed Science Society

Joint Annual Meeting
Feb. 21-24, 2022
Vancouver, British Columbia
www.wssa.net
www.weedscience.ca

Western Society of Weed Science Annual Meeting

Mar. 7 - 10, 2022
Newport Beach, California
www.wsweedscience.org

8th International Weed Science Congress

Dec. 4 – Dec. 10, 2022
Bangkok, Thailand
www.iwsc2020.com

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Publications

WSWS ONLINE EDUCATION

WSSA Journals Website Online

Call for Papers and Posters

Joel Felix, WSWs President-Elect/Program Chair for 2022 Annual Meeting

The 2022 Western Society of Weed Science (WSWS) Annual Meeting will be held in-person, March 7-10, 2022 at the Hyatt Regency Newport Beach, 1107 Jamboree Road, Newport Beach, CA 92660. Room reservation information can be found here <https://www.hyatt.com/en-US/group-booking/NEWPO/G-WSWS>. The hotel is adjacent to the Upper Newport Bay Nature Reserve. Nestled among 26 acres featuring hundreds of palms and a succulent courtyard that is a nod to the California desert. The hotel has three unique pools, an executive golf course and luxury shopping.

The Program Committee will work with the Board of Directors and the members at large to develop a program fit for the 75th WSWs Annual Meeting --a Diamond Jubilee celebration! It is our hope to develop a program that will ***look at the past and present efforts in research and education and anticipate the future of those endeavors***. We welcome your inputs to accomplish this goal. The Program Committee wants to create a program that is engaging, unique, and valuable to all attendees of the 75th WSWs annual meeting. Ideas to help celebrate the WSWs 75th anniversary during the 2022 annual meeting can be sent to the President-Elect and Program Chair joel.felix@oregonstate.edu or the WSWs President sandra@mountainwestpest.com.

Meeting registration information can be found on the society web page, [WSWS Annual Meeting](#). Here are important dates and deadlines for the 2022 WSWs meeting in Newport Beach, CA:

Meeting registration will open on November 15, 2021 and remain open through the meeting dates.

Registration rates:

early – 11/15/2021 to 12/20/2021: \$350.00

after 12/20/2021 through the meeting dates: \$450.00

Student rate: \$200.00 from 11/15/2021 through the meeting dates

Title submission will open Monday, 11/15/2021 and close 12/20/2021

Abstract upload deadline will be Monday, 2/14/2022

Slides upload deadline will be Monday, 2/21/2022.

The 2022 meeting will commence with the WSWs members welcome reception on Monday, March 7 and conclude in the afternoon on Thursday, March 10 with a workshop on “Weeds and Wildfires in the West.”

Oral and Poster Presentations

All attendees are invited and encouraged to participate by presenting at least one paper or poster, and multiple submissions are welcome. WSWs will continue to have oral papers and posters divided into five projects: Agronomic Crops, Basic Biology and Ecology, Horticultural Crops, Teaching and Technology Transfer, and Weeds of Range and Natural Areas. **Poster size should not exceed 45-inches by 45-inches.**

Oral paper presentations will be scheduled every 15 minutes in concurrent sessions. Thus, maintaining a timely schedule in all concurrent sessions is important in order to allow smooth transition for those who need to move between sessions. Therefore, **presentations of 12 to 13 minutes are recommended** to allow time for questions and transition to the next presenter.

Important! Please follow the guidelines when entering oral paper and poster titles! In particular, please use proper capitalization and use of periods, as outlined on the title and abstract submission site weedsmeetingabstracts.com. Standardizing author and organizational names will help make a smoother program. Your cooperation on this is appreciated!

Student Participation

Please plan on bringing your students to the meeting and encourage them to take the opportunity to participate in student oral and/or poster presentation contests and a facilitated “Student Night Out” to visit with members from the academic and industry settings. Newport Beach promises to be an excellent venue and a wonderful meeting to hear about the latest research, recommendations, and findings among a wide range of weed science topics. We hope to see all of you in beautiful Newport Beach, CA.

Symposium and Workshop

There will be one symposium and one workshop during the 2022 annual meeting in Newport Beach. The symposium will be included as part of regular registration and timed during the regularly planned program; Steve Fennimore and Marcelo Moretti have prepared a 4-hour session titled “*New Technology for Physical Weed Control.*” This session will focus on new technology to manage weeds without herbicides; including steaming, electric weed control, biodegradable mulch, and laser weeding (robotics).

The workshop will be on Thursday afternoon, March 10, 2022 and will be included as part of the full registration but will also have a single day registration available for \$50. Matt Baur has organized a half-day workshop titled “*Weeds and Wildfires in the West.*” The workshop will focus on policy on invasive weeds, cohesive wildland fire strategy in the west, weed ecology and fire regimes, biological control of invasive species, medusahead control, ecological management plans, and restoration ecology.

As part of the celebrations for the WSWs 75th annual meeting, the Education & Regulatory Chair, Carl Coburn, has organized a session during the regular meeting to cover the work of the history ad-hoc committee that will look at the history of WSWs prior to 1993, WSWs history and highlights 1993-2016, history of the book ‘Weeds of the West’, history of education/academia over the past 25 years, history of industry consolidation, regulatory, and a panel discussion on the future outlook of the WSWs.

Flying to Newport Beach, California

When flying into Newport, it is probably best to fly into John Wayne Airport (SNA) <https://www.ocair.com/> since it is only about 10-15 minutes away from the conference hotel. Since it is a smaller airport, it may not have your flight, your second choice would be flying into LAX <https://www.flylax.com/>. Fair warning, LAX is a huge airport and can be a bit overwhelming and extremely busy. Because **the hotel does not operate a shuttle** to and from either of the airports, it may be a good idea to make transportation plans ahead of time.

Building on the Rich History of Biological Control of Weeds in the West

Rachel L. Winston¹ and Carol Bell Randall²

¹MIA Consulting, ²USDA Forest Service, Forest Health Protection

Successful Classical Weed Biological Control programs identify the best biocontrol agents available for the target weed, climate, and infestation. The foremost repository for this information is *Biological Control of Weeds: A World Catalogue of Agents and Their Target Weeds*, a free online database available from iBiocontrol.org that catalogs the biocontrol species available and the reasons for their successes and failures across the world.

Classical Weed Biological Control (CWBC) is a method of weed management that introduces a target weed's host-specific natural enemies (those that feed only on the target weed) to give native or more desirable plant species the competitive edge while reducing the negative economic and ecological damage done by weeds. CWBC is not a quick fix, but when executed properly can be a sustainable, self-perpetuating, and effective control method for non-native weeds, and it can be integrated with other cultural, physical, or chemical weed control methods.

The first intentional use of CWBC dates to the mid-1800s when scale insects were redistributed around India and surrounding countries for the control of invasive cactus species. Since then, over 500 biocontrol agents have been released on over 210 weeds in more than 95 countries worldwide [1]. The United States has been and continues to be a world leader in CWBC. The first weed biocontrol agent release in the USA was in Hawaii in 1902. As of the year 2020, over 200 biocontrol agents have been introduced against 79 weed species in the USA.

The first edition of the world catalog was compiled by an Australian biocontrol researcher and printed in 1982 [2]. He updated and expanded this resource approximately every five years until 1998. In 2014 the fifth edition of the catalog was completed, printed, and with the financial and in-kind contributions of numerous individuals and organizations, put online in a free, accessible, searchable, and periodically updated database (www.ibiocontrol.org/catalog/). The online database details information on the release, establishment, impact, limiting factors, and nontarget effects of all weed biocontrol agents released worldwide. The catalog also contains citations for thousands of references [Figure 2].

The online catalog (and references therein) is a great place for land managers to learn about CWBC programs and identify biocontrol agents suitable, effective, and safe for use against target weeds in their region. Catalog readers may also find geographic regions and active organizations from which desired biocontrol agents can be obtained.

The United States, and the West in particular, has been a world leader in the research, development, application, monitoring, and documentation of CWBC, and we hope that with continued communication, education, and teamwork, the important role of western weed biocontrol practitioners will continue in the future.

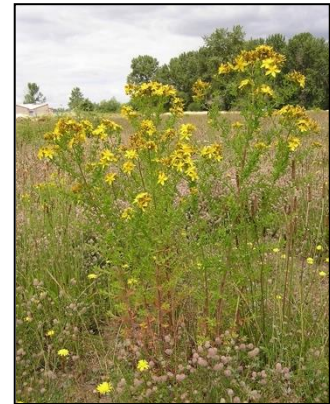


Figure 1. Common St. Johnswort was intentionally introduced to North America for its medicinal value, but escaped cultivation (photo: Eric Coombs, Oregon Department of Agriculture, Bugwood.org)

2022 CALL FOR NOMINATIONS: DISTINGUISHED ACHIEVEMENT AWARDS

Everyone knows of some skilled and outstanding weed scientists in the western region who have contributed a great deal over the years and deserve our recognition and appreciation. One way to recognize such persons is to nominate them for a WSWS award. Please take the time and nominate an individual for one of awards listed below.

CRITERIA USED FOR EVALUATING NOMINATIONS: Awards are based on merit and impact on weed science and weed management practices. Applicants **MUST BE** a member of WSWS. Professional achievements and their impacts are the principal criteria for receiving these awards. There is no requirement that an award be given in any or every category. Past winners are not eligible again in the same category. An award may be given each year in both the private and public sectors for Outstanding Weed Scientist and Outstanding Weed Scientist – Early Career. Only one award may be given each year for Weed Manager and Professional Staff. Within the guidelines for each category, there is flexibility to fit the nominee.

I. OUTSTANDING WEED SCIENTIST

This award recognizes outstanding achievements in weed science from individuals in both the public and private sectors. Principle criteria for this award includes innovative or unique approaches that result in learning, ability to clearly communicate ideas, motivation of the intended audience, demonstrate excellence and creativity in research accomplishments, applying results to solve problems in weed science, the impact on weed management practices and principals of weed science, and recognition of accomplishments by peers and intended audiences.

II. OUTSTANDING WEED SCIENTIST – EARLY CAREER

This award is to be given to members in the private and public sectors with no more than 10 years of service after completion of their terminal degree. This award recognizes outstanding achievements in weed science early in the individual career with the same criteria as the outstanding weed scientist above.

III. WEED MANAGER

This award recognizes outstanding and sustained contributions in support of weed science activities. This award is intended for those paid by taxpayers and that are working in the public sector, such as employees of state departments of agriculture, weed boards, public land managers, and vegetation management personnel. The nominee must have been involved in the WSWS and weed science for at least five years at the time of nomination.

IV. PROFESSIONAL STAFF

This award recognizes outstanding and sustained contributions in support of weed science activities. Nominees will be restricted to individuals that work under the direction of university, federal, or industry scientists. These individuals may have titles such as researcher, research associate, technician, support scientist, or specialist. The nominee must have been involved in the WSWS and weed science research, extension, or resident education for at least five years at the time of nomination.

NOMINATION DEADLINE: Nominations must be received by **December 11, 2021**.

NOMINATOR'S RESPONSIBILITY: The nominator will submit a nomination document following the "Instructions for Nomination" guideline. The nominator is responsible for obtaining three letters of support and including them with the nomination package. Unsuccessful nominations will remain active for three years; however, an updated nomination packet of holdover candidates is encouraged.

The nomination package, including the supporting letters, should be sent, by email, to the chair of the Awards Committee by **December 11, 2021**:

Rich Zollinger
AMVAC Chemical Company
4305 S Bighorn Lane
Spokane Valley, WA 99206-7044
richardz@amvac.com

WASHINGTON REPORT

October 27, 2021

Lee Van Wychen

2021 Science Policy Fellows: Rebecca Champagne and Devon Carroll

The Weed Science Policy Fellowship program is a unique opportunity for graduate students to assist me in my role as Executive Director of Science Policy for WSSA while gaining experience dealing with a broad array of weed science policy issues. This year's Science Policy Fellows are Rebecca Champagne at the University of Maine and Devon Carroll at the University of Tennessee.



Rebecca is a third year Ph.D. candidate at the University of Maine working with Dr. Eric Gallandt. Her research primarily focuses on physical and cultural weed management in organic vegetable systems, mainly for small-scale, diversified operations. Prior to her Ph.D. work, she received a B.S. in Sustainable Agriculture from the University of Maine and an M.S. in Agronomy from Penn State. She also worked as a research analyst for an agricultural software startup in New York City. Rebecca's past involvement in the ASA-CSSA-SSSA Congressional Visit Days piqued her interest in science policy work, where she saw an opportunity to apply her research and critical thinking skills to affect positive changes for U.S. agriculture. She is passionate about helping small-scale

farmers and underrepresented groups through policy and is excited for the opportunities the WSSA policy fellowship will bring.



Devon is a third year Ph.D. candidate at the University of Tennessee studying Turfgrass Weed Science under the direction of Dr. Jim Brosnan. Her dissertation research is focused on understanding how environmental factors affect the length of life of the species *Poa annua* L. Devon earned a B.S. in Turfgrass Science and M.S. in Agronomy focused in turfgrass both from Penn State. She also holds a second M.S. in Agricultural Leadership, Education & Communications from the University of Tennessee. Devon is passionate about communication and has sought opportunities to expand her skills in this area. Most notably, she conducted sociological research aiming to understand barriers and opportunities for women in the turfgrass industry and was selected

to participate in the ASA-CSSA-SSSA Congressional Visits Day. Devon is interested in engaging with stakeholders across the weed science discipline to learn more about how scientific communication shapes policy.

FY 2022 Ag Appropriations Moving Forward, but Short-Term Continuing Resolution to Dec. 3

The House has moved forward with their \$26.5 billion spending plan for the FY 2022 Agriculture budget that would provide about a 10% increase over current funding levels, including \$3.391 billion (\$321 million above the FY 2021 enacted level) for agriculture research programs. The House ag appropriations bill passed out of committee on a bipartisan vote. It is now part of a more controversial [Seven-Bill Appropriations Package](#) in the House that was approved on a party line vote on July 29.

The Senate ag appropriations bill cleared the Appropriations Committee on a 25-5 vote on August 4. The bill includes about \$25.9 billion and would boost spending on ag research by \$292 million over the current fiscal year to \$3.6 billion, roughly the same increase included in the bill that cleared the House.

Many ag research programs are slated for increases in both the House and Senate versions compared to FY 2021 levels. This includes an approximate \$150 million increase for ARS and \$100 million increase for NIFA. Specifically, the IR-4 Program, which has been flat funded at \$11.9 million per year for the past decade was recommended at \$20 million in the president's FY 2022 budget, but only \$14 million in the House and \$14.5 million in the Senate. Other NIFA programs that were slated to receive increases in both the House and Senate include the Hatch and Smith-Lever Act capacity funding programs, AFRI Competitive Grants, and SARE.

However, there is still no agreement yet on overall spending levels in the Senate for the next fiscal year, which started October 1. Congress passed a continuing resolution on Oct. 12 that funds the government at FY 2021 levels until Dec. 3, 2021, while also increasing the federal debt limit.

"Infrastructure Package" Could Provide Nearly \$500 Million for Invasive Plant Management

An "Infrastructure Package" has been under consideration many times in the past decade but has never made it across the finish line. However, Congress has gotten further down the road to final passage in the past couple months than in recent memory.

However, there is a complicated political "do-si-do" going on (some might call it a "game of political chicken") where the fate of the current \$1.2 trillion infrastructure package that passed the Senate on a 69-30 vote in early August is inextricably tied to the more monstrous "budget reconciliation" bill that currently has a \$3.5 trillion price tag.

All that aside, the current version of the infrastructure bill will cost \$1.2 trillion over eight years, and has more than \$550 billion in new spending, including:

- \$110 billion in new funds for roads, bridges, and major projects (\$40 billion is new funding for bridge repair, replacement, and rehabilitation, and \$17.5 billion is for major projects)
- \$73 billion for the country's electric grid and power structures
- \$66 billion for rail services
- \$65 billion for broadband
- \$55 billion for water infrastructure
- **\$21 billion in environmental remediation**

Part of the "environmental remediation" spending in the infrastructure package includes the following two programs that could channel **almost a \$500 million over five years for invasive plant management:**

- Sec. 11522. **\$50 million per year for five years for an "invasive plant elimination program"** through the **Federal Highway Administration.**
- Sec. 40804. **\$200 million** split between the Dept. of the Interior and USDA over 5 years for "ecosystem restoration" through **the US Forest Service for "invasive species detection, prevention, and eradication, including conducting research and providing resources to facilitate detection of invasive species at points of entry and awarding grants for eradication of invasive species on non-Federal land and on Federal land".**

"Budget Reconciliation" Bill is Massive, Mind-boggling, and a Game Changer

On Sep. 13, the House Agriculture Committee advanced its portion of the \$3.5 trillion reconciliation package by a party line vote of 27-24. The bill includes a massive \$7.75 billion investment in agriculture climate research and infrastructure. Below are some of the funding INCREASES that are in the current draft of the bill, relative to its FY 2021 funding level:

Agriculture Research Item	FY 2021 Funding Level	“Reconciliation Bill INCREASE”
Agricultural Research Infrastructure	\$0	\$3.65 billion
Agriculture and Food Research Initiative (AFRI)	\$435 million	\$500 million
Agriculture Advanced Research & Development Authority (AgARDA)	\$0	\$380 million
Foundation for Food and Agriculture Research (FFAR)	\$185 million	\$540 million
Smith-Lever Cooperative Extension	\$315 million	\$600 million
Sustainable Agriculture Research Education (SARE)	\$40 million	\$500 million
Research Equipment Grants	\$5 million	\$100 million
Crop Protection & Pest Mang’t	\$20 million	\$30 million
Organic Agriculture Research and Education Initiative	\$25 million	\$200 million
Agricultural Research Service	\$1.49 billion	\$250 million

Some of the “Budget Reconciliation” bill increases occur in a single year, while other increases would occur over five years with the total increase reached by FY 2026. Either way, you can do the math and see why some of these numbers are both mind-boggling and a game changer.

The path forward for the “budget reconciliation” bill remains unclear. Senators Manchin (D-WV) and Sinema (D-AZ) have requested a much smaller package of about \$1.5 trillion package (compared to the current \$3.5 trillion).

The National and Regional Weed Science Societies are continuing to engage on both the budget reconciliation bill and the infrastructure bill to make sure weed science research and management issues are well represented. **One letter** to Congressional leadership highlighted the \$500 million in additional funding proposed for USDA-NIFA’s Agriculture and Food Research Initiative (AFRI). **A second letter**, which was coordinated by the National Coalition for Food and Agriculture Research (NCFAR), also requested support for the \$7.75 billion designated for agricultural research. That letter was endorsed by over 130 stakeholder groups including the six national and regional weed science societies.

Chuck Sams Nominated as National Park Service Director



President Biden has nominated Charles F. “Chuck” Sams III to serve as the next Director of the National Park Service (NPS), a position that requires confirmation from the U.S. Senate and has been vacant since 2017. Sams currently serves as a Council Member to the Northwest Power and Conservation Council and has worked in state and tribal governments and the nonprofit natural resource and conservation management fields for more than 25 years. He has previously held a number of positions with the Confederated Tribes of the Umatilla Indian Reservation, most recently serving as their Executive Director. He is a veteran of the U.S. Navy and is also a former adjunct professor at Georgetown University

and Whitman College.

Sams earned his B.S. in business administration from Concordia University-Portland and holds a master of legal studies in Indigenous Peoples Law from the University of Oklahoma. If confirmed, Sams would become the first Native American to lead NPS.

Stone-Manning Confirmed as BLM Director



On Sep. 30, 2021, Tracy Stone-Manning was confirmed by a Senate vote of 50-45 to be the next Director of the Bureau of Land Management (BLM). Her nomination proved controversial because a friend of hers, in 1989, was involved in tree spiking in Idaho's Clearwater National Forest. At the friend's behest, Stone-Manning wrote an anonymous letter to federal officials, informing them of the tree spiking and warning that "a lot of people could get hurt" if logging were to continue. In a 1993 federal court testimony, Stone-Manning admitted that she had retyped, edited, and mailed the letter. She received prosecutorial immunity in order to testify against her friend, who was found guilty and sentenced to 17 months in prison.

Stone-Manning was born in VA and earned a B.A. in radio, television, and film from the University of Maryland and a M.S. in environmental studies from the University of Montana. From 1999 to 2006, she was the director of the Clark Fork Coalition in Missoula, MT and then worked for Sen. Jon Tester (D-MT) from 2007 to 2012. Stone-Manning served as the director of the MT Department of Environmental Quality and then as chief of staff for MT Governor Steve Bullock between 2013 and 2017. Since 2017, she has worked for the National Wildlife Federation before being nominated by the Biden administration to serve as BLM Director.

BLM manages over 244 million acres, mostly in the western U.S., and is the largest federal land management agency. Unfortunately, over 79 million acres of BLM land is infested with noxious and invasive weeds, yet BLM only spends \$15 million per year to manage invasive species, which equates to a paltry 6 cents per acre! Let's hope the new BLM Director can direct a little more of the agency's \$1.3 billion towards a pro-active integrated weed management plan.

Federal Agency Leaders (Senate confirmed, unless noted)

USDA Secretary – Tom Vilsack

USDA Deputy Secretary – Jewel Bronaugh

- USDA Under Secretary for Research, Education and Economics (nominated) – Chavonda Jacobs-Young
- USDA National Institute of Food and Agriculture, Director (appointed)– Carrie Castille
- USDA Agriculture Research Service, Administrator -
- USDA Under Secretary for Natural Resources and Environment (nominated) – Homer L Wilkes
- US Forest Service, Chief (appointed) – Randy Moore

Department of the Interior (DOI) Secretary – Deb Haaland

DOI Deputy Secretary- Tommy Beaudreau

- DOI Assistant Secretary for Policy, Management and Budget (nominated) – Winnie Stachelberg
- DOI Assistant Secretary for Fish, Wildlife and Parks- Shannon Estenoz
 - National Park Service (NPS), Director (nominated)– Charles F. Sams III
 - US Fish and Wildlife Service (USFWS), Director (nominated) – Martha Williams
- DOI Assistant Secretary for Land and Minerals Management (nominated) – Laura Daniel-Davis
 - Bureau of Land Management (BLM), Director – Tracy Stone-Manning
- DOI Assistant Secretary for Water and Science – Tanya Trujillo
 - US Geological Survey (USGS), Director – no nominee
 - Bureau of Reclamation (BOR), Commissioner (nominated) – M. Camille Calimlim Touton

Department of Defense, Secretary of the Army – Christine Wormuth

-Army Corps Assistant Secretary of the Army for Civil Works (nominated) – Michael Connor

EPA Administrator- Michael Regan

EPA Deputy Administrator – Janet McCabe

-EPA Assistant Administrator for Chemical Safety & Pollution Prevention- Michal Freedhoff

-EPA Assistant Administrator for Water- Radhika Fox

-EPA Assistant Administrator for Research and Development (nominated)- Henry Christopher Frey

Council on Environmental Quality, Chair- Brenda Mallory

Paraquat Decision Drops: EPA Finalizes Paraquat Registration, OKs Aerial Applications for Now

By Emily Unglesbee, DTN Staff Reporter. Published 8/2/2021. Republished with permission.

<https://www.dtnpf.com/agriculture/web/ag/crops/article/2021/08/02/epa-finalizes-paraquat-registration>

EPA finalized its interim registration decision for paraquat on Aug. 1, reversing its proposal last year to ban most aerial applications.

Instead, the agency will permit aerial applications of the Group 22 herbicide in crops, with expanded buffer requirements and acreage limits designed to protect applicators. Aerial use of paraquat is most common in cotton, where it is used as a plant desiccant to prepare for harvest.

Though finalized, EPA's conclusion here remains an "interim" registration decision. The agency will not have a complete registration decision for paraquat until it conducts its endangered species assessment and an endocrine screening for the chemical.

The agency first put out a draft interim decision for paraquat back in October 2020, wherein it proposed banning all aerial applications except for cotton desiccation, in addition to banning handgun and backpack sprayer application methods. See more on that draft decision [HERE](#). In its new decision, the EPA noted that, outside cotton desiccation, "aerial application of paraquat is likely minimal or sporadic."

Some of the changes EPA made between that draft and the new finalized decision are the result of new data from a consortium of chemical companies called the Agricultural Handler Exposure Task Force. See more [HERE](#).

Ultimately, the finalized decision has these changes:

- Aerial applications are permitted but limited to a maximum of 350 acres per applicator within a 24-hour period for all uses except cotton desiccation, where no acreage limitations will be required.
- A 50- to 75-foot residential buffer requirement now applies to all aerial uses of paraquat.
- The use of human flaggers during paraquat applications is prohibited.
- Enclosed cabs are required for applications made to more than 80 acres in a 24-hour period, to limit inhalation risks.
- For smaller applications to 80 acres or fewer in a 24-hour-period, PF10 respirators can be used, or enclosed cabs.
- Applications with mechanically pressurized handguns and backpack sprayers are prohibited.
- Applicators must follow a 48-hour restricted entry interval for all crop uses except for cotton desiccation, which requires a seven-day restricted entry interval.
- Labels will include new language designed to limit spray drift, as well as new units of measurement.

To see the full decision, visit the EPA docket [HERE](#).

Use of paraquat, which is sold under brand names such as Gramaxone, Firestorm and Parazone, has increased steadily in the U.S. in the past decade, in response to the development of herbicide-resistant weeds. Applications rose from under 5 million pounds a year before 2013 to as high as 12 million pounds per year in 2017. Based on survey data from a research company called Kynetec USA, the highest use by acreage is in soybeans, cotton and corn, but producers also lean heavily on paraquat in grapes, pistachios and peanuts.

However, the chemical has also been the target of lawsuits and controversy, given its high toxicity, its role in poisoning accidents and research suggesting it might be linked to Parkinson's disease. Most recently, paraquat registrant Syngenta and a past manufacturer of the chemical, Chevron USA, are facing class-action lawsuits alleging that its use has caused Parkinson's disease in farmers. See more [HERE](#).

The herbicide is undergoing EPA's routine 15-year re-registration review, which the agency began back in 2012. In 2016, the agency instituted new rules on labeling, packaging and handling requirements aimed at reducing accidental poisonings. See more [HERE](#).

Environmental groups reacted with concern to EPA's finalized interim decision permitting aerial applications.

"It's extremely disappointing that the Biden EPA is reapproving this dangerous pesticide, which is outlawed across a lot of the world," Nathan Donley, environmental health science director at the Center for Biological Diversity, said in a news release. "Instead of banning a weed-killer linked to Parkinson's disease in farmworkers, reproductive harm in small mammals and increased death rates for birds, this administration is bowing to the wishes of the chemical industry and allowing it to be sprayed on crops from the air.

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Follow her on Twitter [@Emily_Unglesbee](https://twitter.com/Emily_Unglesbee)

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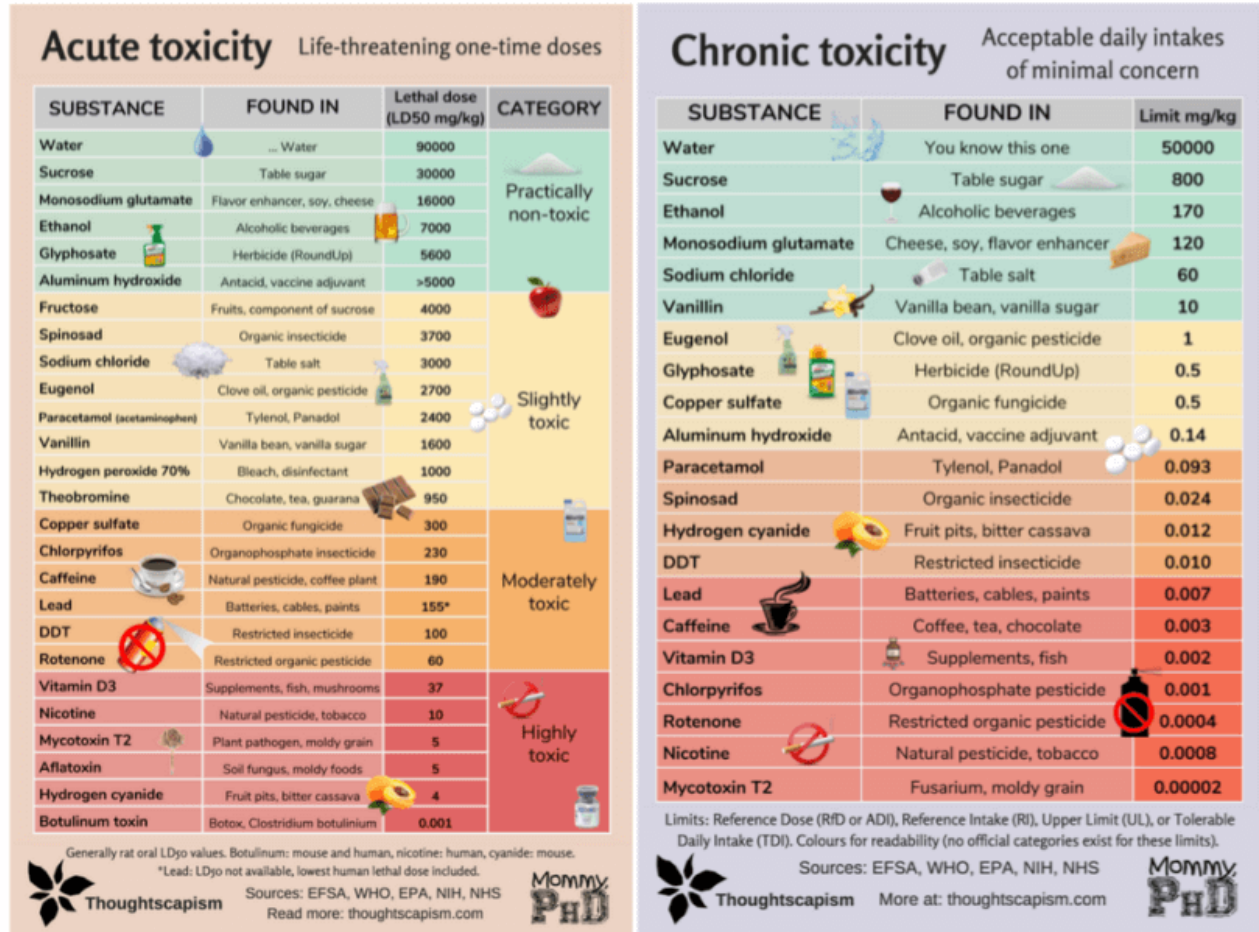
Lee Van Wychen NOTE 1: The cancellation of backpack sprayers and mechanically pressurized handguns **does NOT have an impact on the experimental use of paraquat** under an Experimental Use Permit or the 40 CFR 172.3(b) exemption. Labels for unregistered products distributed solely for experimental use and research purposes do not need EPA approval and can differ from registered products as appropriate for the experimental use.

Lee Van Wychen NOTE 2: After a thorough review of the best available science, **EPA has NOT found a clear link between paraquat exposure from labeled uses and adverse health outcomes such as Parkinson's disease and cancer.** EPA has evaluated hundreds of studies, including published toxicity and epidemiology literature on paraquat exposure and adverse health outcomes, including Parkinson's Disease. There are many studies on paraquat and Parkinson's Disease that range in quality and provide conflicting results. Following EPA's 2019 literature [review](#), a [2020 update](#) from the large and comprehensive Agricultural Health Study (AHS) was published that **reported NO association between paraquat exposure and Parkinson's Disease.** The AHS is considered the "Gold Standard" and has been tracking the health of tens of thousands of agricultural workers, farmers and their families in Iowa and North Carolina. Notably, the updated AHS did not replicate [earlier 2011 findings from AHS](#) that were considered by EPA and suggested a potential association may exist.

Infographic: Does Glyphosate Cause Cancer? 18 of 19 Global Regulatory and Chemical Oversight Agencies Say ‘no’ While One Presents Equivocal Data

By: Genetic Literacy Project. September 13, 2021.

<https://geneticliteracyproject.org/2021/09/13/infographic-does-glyphosate-aka-roundup-cause-cause-cancer-18-of-19-global-regulatory-and-chemical-oversight-agencies-say-no-while-one-presents-equivocal-data/>



NISAW 2022 is Feb. 28 – Mar. 4

The next National Invasive Species Awareness Week (NISAW) will be February 28 – March 4, 2022 and will return to a single weeklong event and “fly-in” to Washington DC. If you have topics or issues of concern, or would like to help plan next year’s NISAW, please let me know.

Lee Van Wychen, Ph.D.
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 National and Regional Weed Science Societies
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 (202) 746-4686

STUDENT PAPER AND POSTER CONTEST INFORMATION

Josh Adkins, Chair

The Student Paper and Poster Contest held at the WSWS Annual Meeting provides an excellent opportunity for students to improve their presentation skills and increase visibility within the society. The winners of each division also receive a plaque and cash award to honor their achievement.

- All graduate students are encouraged to enter one paper and/or one poster in the contest.
- Undergraduate students may enter one paper or one poster in the contest. All undergraduate students who intend to participate must notify the committee chair.
- If students entering the contest do not wish to be judged (i.e. considered for awards) but would like to receive feedback on their presentations, please notify the committee chair.
- Contest rules and scoring criteria can be found at <http://wsweedsociety.org> on the Student Resources page.

Judges Invitation

The judging committee is seeking non-student volunteers to participate as judges for the paper and poster competition. Volunteer judges are the foundation for a successful contest! Your feedback as a judge provides the students an opportunity to improve their presentation skills and excel as a weed scientist. If you are interested in volunteering, please email the committee chair. We need your help!

Attention to Advisors and Students

The WSWS Student Paper and Poster Contest committee will be enforcing the below policies. The committee is focused on making the contest a fair and enjoyable experience for all students.

- Information presented in the WSWS Student Paper and Poster Contest must be original and unique. If a topic has been used by the author in another presentation at a different weed science society meeting, additional data must be included to constitute a unique presentation.
- Oral and poster presentations entered for competition by the same person should be substantively different from each other (for example, not just changing the title or simply adding more data to the poster). There should be no overlap between the data presented in the poster and oral format by the author (if entered in a competition).
- Students attending institutions in states that are not WSWS members may enter and receive evaluation but will not be considered for awards.
- All students entering the contest are required to submit an abstract not to exceed 250 words (word count in Microsoft Word). All abstracts exceeding 250 words will be docked points accordingly.

The tables below contain scoring details for the paper and poster contest. Please note the updated scoring system under the TIME section in regard to period of time left for questions in the paper contest. Please let me know if you have any questions!

Josh Adkins, Student Paper and Poster Judging Committee Chair
email: joshua.ira.adkins@gmail.com

Paper Contest*	Points	Criteria
Abstract:	10	Length: 5pt ≤ 250 words; Opt > 250 words Appropriate content, format and grammar
Introduction:	10	Concise background to topic Clear objectives and hypothesis
Methods:	15	Correct and clear experimental design Clear treatments and measurements Correct statistical analysis
Results:	10	Clear and clean demonstration of data Methods support data collected
Discussion:	15	Clear interpretations based on data Concise conclusions based on data Future research recommendations
Visual aids:	15	Easily readable and uncluttered Balance of tables, figures, pictures Proper grammar, spelling and units
Oration:	20	Speaker confident and enthusiastic Effective gestures, mannerisms and voice Eye contact and appropriate behavior Speaker answers questions confidently
Time:	5	Allow 2-4 min for questions 11-13 min presentation = 5 points 10-11 or 13-14 min presentation = 3 points <10 min or >14 min = 0 points
Total	100	
*Previous first place winners in the paper contest are ineligible for the paper contest but may enter the poster contest.		

Poster Contest*	Points	Criteria
Abstract	10	Length: 5pt ≤ 250 words; Opt > 250 words Appropriate content and format
Mechanics	5	Proper grammar, spelling and units
Overall Content	15	Appearance and creativity in design Effective layout and logical flow Balance of tables, figures, pictures
Appearance	10	Uncluttered and easily read text size Tables and figures clear and concise
Introduction	10	Uncluttered and easily read text size Tables and figures clear and concise
Development	15	Correct and clear experimental design Clear treatments and measurements Quality of research and discussion
Results	20	Correct statistical analysis Methods support data collected Clear interpretations based on data Future research recommendations / implications
Oration	10	Eye contact, voice and behavior Speaker answers questions confidently
Physical	5	Interaction, enthusiasm and confidence
Total	100	
*Previous first place winners in the poster contest are ineligible for the poster contest but may enter the paper contest.		

2021 Membership Renewal Form

To pay by credit card, please go to www.wsweedscience.org
and login to your account

IF YOU DID NOT ATTEND THE ANNUAL MEETING BUT WANT TO REMAIN A MEMBER, FILL IN THE INFORMATION BELOW AND SEND \$30.00 FOR DUES TO THE ADDRESS GIVEN.

Last name	First name	Affiliation	
Mailing address	City	State	Zip code
Phone # w/area code	e-mail address		

Classification: Student ___ University ___ Federal Agency ___ State Agency ___
Private Industry (manufacturing and sales) ___ Private Industry (consulting) ___
Unemployed ___ Retired ___ other (specify) _____

Send to: WSWS/IMI,
12110 Pecos St., Ste 220,
Westminster, CO 80234
Questions? info@wsweedscience.org or (303) 327-8016

Publications Available from the WSWS

The following books or DVDs can be purchased from the WSWS:

Aquatic and Riparian Weeds of the West
Weeds of California and Other Western States
Interactive Encyclopedia of North American Weeds DVD
Weed Bingo

All publications can be ordered online at [WSWS Bookstore](#). Contact the Business Manager (Eric Gustafson) at (303) 327-8016 for bulk order prices.

WSWS Objectives

- ❖ To foster and encourage education and research in weed science.
- ❖ To foster cooperation among state, federal and private agencies in matters of weed science.
- ❖ To aid and support commercial, private and public agencies in the solution of weed problems.
- ❖ To support legislation governing weed control programs and weed research and education programs.
- ❖ To support the Weed Science Society of America and foster state and regional organizations and agencies interested in weed control.



Western Society of Weed Science
12110 Pecos St., Ste. 220
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