



# Western Society of Weed Science Newsletter

12110 N Pecos Street, Ste. 220, Westminster, CO 80234

(303) 327-8016

[info@wsweedsociety.org](mailto:info@wsweedsociety.org)

## SUMMER 2023

### IN THIS ISSUE:

President's Report

Student Liaison Report

Denver Meeting Update

Elena Sanchez Memorial WSW  
Outstanding Student Scholarship

2024 Call for Papers & Posters

Rita Beard Endowment  
Foundation Student Scholarship

Necrology – Raymond William

2023 Proceedings Update

New Peer-reviewed Weed and  
Biocontrol Agent Fact Sheet

Request for Fellows and  
Honorary Member Nominations

Call for Distinguished  
Achievement Awards

Washington Report

Membership Renewal Form

Publication Available

### Sidebar highlights:

- [Contact Us](#)
- [Officers & Executive Committees](#)
- [Publications](#)
- [Calendar of Events](#)



## President's Report - Curtis Rainbolt

The WSW Board of Directors met July 20 and 21 at the Grand Hyatt Denver for the summer board meeting. Board members that were unable to attend in person joined via Zoom. The meeting was productive, and I want to thank all the board, committee chairs, and other members that made time during the busy summer season to contribute in-person and virtually.

The board also met virtually this spring to discuss and vote on the Finance Committee recommendation to renew our contract with IMI and Eric Gustafson. The motion passed unanimously. Eric keeps our society running smoothly and I look forward to the continued relationship.

I had the opportunity to join Lee Van Wychen (WSWS Executive Director of Science Policy), Carroll Moseley (WSSA President), Wes Everman (NEWSS President), Eric Castner (SWSS President), and Reid Smeda (NCWSS President) for a week in Washington DC. We visited members of Congress to advocate for weed science policy initiatives. It was great to see the relationships and impact that Lee has for weed science.

The Proceedings of the 2023 meeting will soon be posted. Many thanks to Carl Libbey for the tremendous work he does in putting the Proceedings together.

Finally, it is the time of year to nominate one of your colleagues for a society award. Nominations can be made for Fellow, Honorary Member, and Distinguished Achievement Awards. Please consider nominating one of our many deserving members.

**WSWS Annual Meeting March 4 – 7, 2024, Denver, Colorado**

# Student Liaison Report – Aaron Becerra-Alvarez

The summer is the time we perform our research, take a break from classes, and prepare for the following school year. It is also time for the WSWs summer board meeting in preparation for the following annual meeting. Both Kenzie and I had the opportunity to attend the summer board meeting in Denver, which was an enjoyable experience. It was great to be part of the discussions and represent the students. The board really got a lot done. Denver has a beautiful venue and many great restaurants nearby.

During the meeting, a copy of “The Western Society of Weed Science 1938-2021” book was donated to the Student Liaisons by Vanelle Peterson (WSWS President, 2011-2012), which we will now be passed down along with the dandelion digger plaque to the incoming Student Liaison. The book also holds the story on the student representation in the society, apart from the overall history of WSWs. The book provides a symbol to the importance of how we got to where we are today as a society and gives the students some background information as they enter their role in the board of directors. I know I have enjoyed reading through it so far. Thank you Vanelle!

## *Future Opportunities*

There are some incoming opportunities for students to serve on WSWs committees. More information will be sent out in the coming months when we figure out which committees need a student representative. If you are interested, respond to our emails. Serving on committees is an opportunity to offer service to WSWs and provide a student perspective to the activities of the committees. It is also a good service activity to add to your resume. Be on the lookout if interested.

The Rita Beard Endowment Scholarship and the Elena Sanchez Memorial Outstanding Student Scholarship will become available soon, so be vigilant for the emails or on social media for the new applications to become available. These are great opportunities to promote participation in our annual meeting and other professional meetings. If you are aware of any deserving students, please guide them toward these great opportunities.

In the past few months and moving forward we are looking to be more active on social media, specifically on X (formerly Twitter). If you are on that platform, please follow and/or tag us (@WSWSstudents) on your post that are related to your research, extension events, or other activities that may be of interest to the WSWs students. We have diverse cropping systems and natural systems research in the West and it would be interesting to showcase all.

Please feel free to reach out to us if you have any ideas or questions. Remember to enjoy the summer!

Aaron Becerra-Alvarez, Student Chair  
[abecerraalvarez@ucdavis.edu](mailto:abecerraalvarez@ucdavis.edu)

McKenzie Barth, Student Chair (elect)  
[mbarth3@uwyo.edu](mailto:mbarth3@uwyo.edu)

## Contact Us

### Newsletter Editor

**Carl Libbey**

[wswsnewslettereditor@gmail.com](mailto:wswsnewslettereditor@gmail.com)

## WSWS Officers and Executive Committees

### President

**Curtis Rainbolt**

BASF Corporation

[curtis.rainbolt@basf.com](mailto:curtis.rainbolt@basf.com)

Awards, Site Selection

### President-Elect

**Timothy Prather**

University of Idaho

[tprather@uidaho.edu](mailto:tprather@uidaho.edu)

Program, Poster, Publications,  
Student Paper Judging, Local  
Arrangements

### Immediate Past President

**Joel Felix**

Oregon State University

[joel.felix@oregonstate.edu](mailto:joel.felix@oregonstate.edu)

Fellows & Honorary Members,  
Sustaining Members,  
Nominations

### Secretary

**Joe Vassios**

UPL NA, INC.

[joseph.vassios@upl-ltd.com](mailto:joseph.vassios@upl-ltd.com)

Necrology

### Treasurer

**Ryann Rapp**

Bayer Cropscience

[ryan.rapp@bayer.com](mailto:ryan.rapp@bayer.com)

Finance

### WSSA Representative

**Alan Helm**

Gowan Inc

[ahelm@gowanco.com](mailto:ahelm@gowanco.com)

Legislative

**CAST Representative**

Gregory Dahl  
Winfield United  
gkdahl@landolakes.com

**Member-At-Large -  
Public Sector****Member-At-Large -  
Private Sector**

Clarke Alder  
Amalgamated Sugar  
calder@amalsugar.com  
**Herbicide Resistant Plants**

**Research Section Chair**

Marcelo Moretti  
Oregon State University  
marcelo.moretti@oregonstate.edu

**Research Section Chair-Elect**

Dirk Baker  
Campbell Scientific  
dbaker@campbellsci.com

**Education & Regulatory  
Section Chair**

Nevin Lawrence  
University of Nebraska  
nlawrence2@unl.edu  
**Public Relations**

**Education & Regulatory  
Section Chair-Elect**

Albert Adjesiwor  
University of Idaho  
aadjesiwor@uidaho.edu

# Annual Meeting Update

Tim Prather President-Elect/Program Chair

I hope you will attend our meeting in Denver, we have a great venue and as always, it is the people in attendance who make WSWs what it is. The meeting will commence with the welcome reception at 6 pm on Monday, March 3 and conclude Thursday, March 7, 2024.

Meeting events and lodging are both at the Grand Hyatt. The board of directors toured the facility during our summer meeting. Our meeting rooms should be well clustered to make moving across projects efficient. The Grand Hyatt Denver is centrally located in downtown Denver where there are several coffee shops and a variety of different restaurant options within a two-block walking distance. For additional eating options, the hotel is located 0.6 mi from the 16<sup>th</sup> Street Mall, which has over 50 restaurants and 300 stores. Faculty, please plan on bringing your students to the meeting and encourage them to take the opportunity to participate in student oral presentation and/or poster contests as well as "Student Night Out" to visit with members from academic and industry settings.

On behalf of the 2024 Program and Local Arrangements Committees, we look forward to seeing all of you in Denver to meet with colleagues, form new relationships and engage with the latest research, strategies for teaching and outreach, and regulatory/policy issues.

## Elena Sanchez Memorial WSWs Outstanding Student Scholarship Program

The Western Society of Weed Science is pleased to offer the WSWs Outstanding Student Scholarship to promote greater student participation at the WSWs annual meeting and encourage new weed science research and future weed science careers. Scholarships will be awarded to three outstanding undergraduate and/or graduate WSWs student members who will attend and present at the WSWs annual meeting.

A total of \$3,000 (three \$1,000 scholarships) will be awarded to outstanding undergraduate and/or graduate WSWs student members currently conducting research relevant to weed science. The scholarship money may be used to defray research costs, as a stipend, and for travel to the WSWs annual meeting. To ensure scholarship money can be used for travel to the annual meeting, selections will be made, and participants notified of the committee's decision by November 3, 2023.

Go to: [Elena Sanchez Western Society of Weed Science Outstanding Student Scholarship](#) for information and details on qualifications and how to apply. The deadline for applications is October 6, 2023. Applicants will be informed by November 3, 2023. If you have questions, contact Harry Quicke, WSWs Awards Chair ([harry.quicke@envu.com](mailto:harry.quicke@envu.com)).

# Call for Papers and Posters

**Tim Prather President-Elect/Program Chair**

The 2024 Western Society of Weed Science (WSWS) meeting will take place from March 4 to March 7 in Denver, Colorado at the Grand Hyatt (**please note, not at the Hyatt Regency**).

**Title and abstract submission open October 2, 2023.** Deadline for title submission is **December 1, 2023**, but abstracts may be entered and revised any time through mid-February 2024. 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: [WSSA Abstracts](#). Standardizing author and organizational names will help make a smoother program. Your cooperation on this is appreciated!

All attendees are invited and encouraged to participate by presenting at least one paper or poster, and multiple submissions are welcome. WSWS has a few changes for the 2024 meeting. We will continue to have oral papers and posters divided into projects:

- 1) *Weeds of Agronomic Crops,*
- 2) *Basic Biology, Ecology, and Technology,*
- 3) *Weeds of Horticultural Crops,*
- 4) *Teaching and Outreach,*
- 5) *Regulatory and Policy,*
- 6) *Weeds of Range, Forestry, and Natural Areas.*

Graduate and undergraduate students are strongly encouraged to enter the student paper and/or poster contests. This is accomplished with one pull-down selection on the title submission screen.

Oral paper presentations will be scheduled every 15 minutes in concurrent sessions. Maintaining a timely schedule is important 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. WSWS Poster size should not exceed 42-inches by 42-inches.

## Rita Beard Foundation Scholarship

The Western Society of Weed Science's Rita Beard Endowment Foundation Scholarship supports students and early career invasive species managers with educational opportunities by providing registration and travel funds to a professional meeting including the Western Society of Weed Science, North American Invasive Species Management Association, Western Aquatic Plant Management Society, or the Society of Range Management meetings. Go to: <https://wsweedscience.org/student-resources/> for information and details on qualifications and how to apply. The deadline for applications is October 6, 2023. Applicants will be informed by December 9, 2023. If you have questions, contact Jane Mangold, Vice President, Rita Beard Fund Trustees ([jane.mangold@montana.edu](mailto:jane.mangold@montana.edu)).

### Business Manager

**Eric Gustafson**

IMI

12110 Pecos St, Suite 220

Westminster, CO 80234

[info@wsweedscience.org](mailto:info@wsweedscience.org)

### Constitution & Operating Procedures

#### Representative

**Sandra McDonald**

Mountain West Pest

[sandra@mountainwestPEST.com](mailto:sandra@mountainwestPEST.com)

### Webmaster & Web Editor

**David Krueger**

Apex WebStudio LLC

[david@apexwebstudio.com](mailto:david@apexwebstudio.com)

### Student Liaison

**Aaron Becerra-Alvarez**

University of California, Davis

[abecerraalvarez@ucdavis.edu](mailto:abecerraalvarez@ucdavis.edu)

### Student Liaison Chair-elect

**McKenzie Barth**

University of Wyoming

[mbarth3@uwyo.edu](mailto:mbarth3@uwyo.edu)

### Executive Director of Science Policy

**Lee Van Wychen**

National and Regional Weed

Science Societies

5720 Glenmullen Place

Alexandria, VA 22303

(202) 746-4686

[Lee.VanWychen@WSSA.net](mailto:Lee.VanWychen@WSSA.net)

### Publications

**WSWS ONLINE**

**EDUCATION**

**WSSA Journals Website  
Online**

## CALENDAR OF EVENTS

**Canadian Weed Science  
Society Annual Meeting**  
Nov. 19 - 23, 2023  
Winnipeg, Manitoba  
[www.weedscience.ca](http://www.weedscience.ca)

**North Central Weed  
Science Society Annual  
Meeting**  
Dec. 11 – 14, 2023  
Minneapolis, Minnesota  
[www.ncwss.org](http://www.ncwss.org)

**Northeastern Weed  
Science Society Annual  
Meeting**  
Jan. 8 - 11, 2024  
Boston, Massachusetts  
[www.newss.org](http://www.newss.org)

**Weed Science Society of  
America  
and  
Southern Weed Science  
Society Joint Annual  
Meeting**  
Jan. 22 – 25, 2024  
San Antonio, Texas  
[www.wssa.net](http://www.wssa.net)  
[www.swss.ws](http://www.swss.ws)

**Western Society of Weed  
Science Annual Meeting**  
Mar. 4 – 7, 2024  
Denver, Colorado  
[www.wsweedscience.org](http://www.wsweedscience.org)

**Aquatic Plant Management  
Society Annual Meeting**  
Jul. 14 - 18, 2024  
St. Petersburg, Florida  
[www.apms.org](http://www.apms.org)

# NECROLOGY

**Raymond D. William**

**October 1, 1946 – July 23, 2023**

Ray William of Roseville, California died on Sunday, July 23, 2023 following a series of strokes. Ray was born to Ray and Betty William on October 1, 1946 in Denver, Colorado. With his family, he moved to Washington state in 1955.

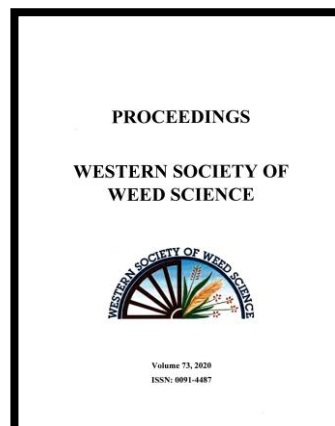
He worked at the WSU Puyallup Research and Extension Center beginning in high school and earned B.S. degree in Horticulture at Washington State University in 1968, followed by a MS in 1972. After 2 years of research in Brazil, he received a Ph.D. in Horticulture from Purdue University in 1974.

His initial professional position was at The Asian Vegetable Research and Development Center (AVRDC) near Tainan, Taiwan. He and his wife Nancy lived at the center for 2½ years. He then served on the faculty at the University of Florida for 3 years. Ray then joined the faculty at Oregon State University in January 1980 as a Cooperative Extension Specialist in the Department of Horticulture, retiring in 2008. He also served in Malawi Bvumbwe Agricultural Research Station (BARS) from 1986-1988.

Ray was an active member of WSWs, WSSA, ASHS and the Oregon Society of Weed Science. He devoted his early career to popularizing 'living mulches' in western Oregon. He provided extensive service to the Department of Horticulture and Oregon State University and was coeditor of the PNW Weed Management Handbook for more than 2 decades. He created the Raymond D. William Teaching Innovation Fund at WSU Vancouver. Memorial contributions can be made to student scholarships in the Horticulture Departments at WSU or OSU, or to First United Methodist Church, Roseville.

A memorial service will be held on Sunday, August 20 at 2 PM at the First United Methodist Church in Roseville, California

## 2023 Proceedings



The Proceedings from the 2023 Boise, Idaho 76<sup>th</sup> annual Meeting of the Western Society of Weed Science, held jointly with the Western Aquatic Plant Management Society have been posted to the WSWs website. You can view or download the Proceedings by following this link:

[WSWS 2023 Proceedings](#)

# New Peer-reviewed Weed and Biocontrol Agent Factsheets Available

In 2022, the North American Invasive Species Management Association (NAISMA) Classical Biocontrol Committee began creating and publishing peer-reviewed weed biocontrol factsheets. These factsheets are designed to help North American landowners and weed managers identify and understand weed species and learn about their associated biocontrol agents. Subject matter experts are preparing this series and each factsheet is peer-reviewed by experts in the field to ensure accuracy. Eighty factsheets for 40 weed systems will soon be published and freely available online. Factsheets for 26 weed systems are available now.

- **Weed factsheets** cover plant identification, history, distribution, ecology, habitat, and comparisons to look-a-like species.
- **Biocontrol agent factsheets** provide information on agent identification, life cycle, impact, habitat requirements, history and current status for all biocontrol agents or accidentally introduced species associated with their host plant species.

NAISMA's network and focus on invasive species awareness and education provides an excellent platform to reach a broad audience of land-managers. The NAISMA Classical Biocontrol Committee consists of biocontrol professionals from local, state, non-profit, university, and federal agencies who are committed to providing education on this important management tool. Funding for these factsheets is provided by the United State Forest Service. NAISMA is partnering with [iBiocontrol.org](https://www.ibiocontrol.org), which will host the factsheets. Updates to iBiocontrol.org are underway, and this useful webpage will soon provide for a broad range of weed biocontrol information for practitioners, researchers, and the public.

There are currently 26 completed factsheet systems including: alligatorweed, Brazilian peppertree, Cape-ivy, common gorse, common reed, garlic mustard, giant reed, houndstongue, hydrilla, knapweed species, knotweed species, Mediterranean sage, melaleuca, mile-a-minute weed, Old World climbing fern, purple loosestrife, Salvinia species, scentless chamomile, rush skeletonweed, Scotch broom, tansy ragwort, toadflax species, tropical soda apple, waterhyacinth, and waterlettuce. To access these factsheets, please use the QR code or visit the [NAISMA Resources Biocontrol Factsheets page](https://www.naisma.org/resources/biocontrol-factsheets).

For more information contact Jennifer Andreas, Washington State University at [jandreas@wsu.edu](mailto:jandreas@wsu.edu)

## SCOTCH BROOM

*Cytisus scoparius* L., Link

## HISTORY AND ECOLOGY IN NORTH AMERICA


Jennifer E. Andreas<sup>1</sup>, Michael J. Pitcairne<sup>2</sup>, and Paul D. Pratt<sup>3</sup>  
<sup>1</sup>Washington State University Extension, <sup>2</sup>California Department of Food and Agriculture, <sup>3</sup>USDA ARS

**SYNONYMS**  
 Broom, broomrape, common broom, European broom, English broom, Irish broom, Scotch broom, *Sorothamnus scoparius* (L.) Wimm. ex W.D.J. Koch

**CLASSIFICATION**

RANKING	SCIENTIFIC NAME	COMMON NAME
Kingdom	Plantae	Plants
Subkingdom	Tracheobionta	Vascular plants
Superdivision	Spermatophytes	Seed plants
Division	Magnoliophyta	Flowering plants
Class	Magnoliopsida	Dicotyledons
Subclass	Fragales	
Order	Fabales	
Family	Fabaceae (Leguminosae)	Pea family
Genus	<i>Cytisus</i>	Broom
Species	<i>Cytisus scoparius</i> (L.) Link	Scotch broom

**HISTORY AND DISTRIBUTION**  
 Scotch broom is native to Europe. It was introduced to North America in the 1800s (first Virginia and California) as an ornamental, fodder for domestic sheep, and erosion control. It was first reported invasive by 1860. Scotch broom is currently present in 29 U.S. states (Fig. 1) and three Canadian provinces.



**IMPACT**  
 Scotch broom competes aggressively with other plants for nutrients, light, and water. It displaces native and/or more desirable species, reducing range, pasture, and commercial forest production. Older growth is unpalatable to grazing animals, and toxic compounds in seeds have resulted in livestock deaths. Although goats, sheep, and wildlife will browse young growth and flowers, the negative impacts outweigh the positive because dense stands of Scotch broom form impenetrable thickets that block access to water and more desirable forage. The high oil content of Scotch broom foliage and seeds and the large amount of dead growth beneath their canopies make Scotch broom an extreme fire hazard.

**IDENTIFICATION**  
**As a CLIMBER**  
 Scotch broom (Fig. 2) is a shrub typically growing 3–10 ft (1–3 m) from a forked taproot. Stems are green, star-shaped in cross section, and hairy when young, but less hairy as the plant ages. Leaves are alternate, divided into three segments, and are deciduous. Flowers are usually yellow, up to 1 in (2.5 cm) long, and are characteristic of the pea family with petals forming a banner and keel (similar to a boat). Seed pods can grow up to 3 in (7.5 cm) long; they are flattened and have hair on the margins, turning brown at maturity. This plant reproduces only by seed.




Figure 1. Scotch broom reported distribution in North America (Credit: Andreas et al. 2012, 2020a).  
[www.citrus.org/USDA-FLNRTS-Databases/chart.html](https://www.citrus.org/USDA-FLNRTS-Databases/chart.html) (last accessed 24 August 2022)

Figure 2. Scotch broom plant (Eric Canham, Oregon Department of Agriculture, USDA ARS, 2012-2022)

## SCOTCH BROOM

BIOCONTROL AGENTS

## HISTORY AND ECOLOGY IN NORTH AMERICA

Jennifer E. Andreas<sup>1</sup>, Michael J. Pitcairne<sup>2</sup>, and Paul D. Pratt<sup>3</sup>  
<sup>1</sup>Washington State University Extension, <sup>2</sup>California Department of Food and Agriculture, <sup>3</sup>USDA ARS

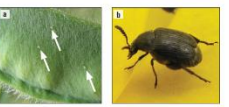
***Bruchidius villosus***  
 Broom seed beetle

*Bruchidius villosus* is a biological control agent approved in North America for release against Scotch broom.

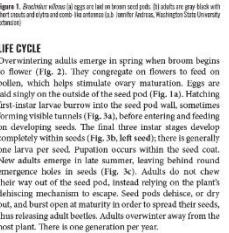
**CLASSIFICATION**

RANKING	SCIENTIFIC NAME	COMMON NAME
Kingdom	Animalia	Animals
Phylum	Arthropoda	Arthropods
Class	Insecta	Insects
Order	Coleoptera	Beetles
Family	Chrysomelidae	Leaf beetles
Genus	<i>Bruchidius</i>	
Species	<i>Bruchidius villosus</i> (Pallas)	Broom seed beetle

**DESCRIPTION**  
 Eggs are tiny, white, and oval-shaped (Fig. 1a). Larvae are an off-white color with brown head capsules and can reach up to 2 mm in length. Pupae are gray or brown and up to 2 mm long. Larvae and pupae are difficult to see as they are both found completely within attacked seeds. Adults are completely gray-black and can be up to 2 mm long (Fig. 1b). They have segmented antennae, and both their elytra (wing covers) and snouts are short.



**LIFE CYCLE**  
 Overwintering adults emerge in spring when broom begins to flower (Fig. 2). They congregate on flowers to feed on pollen, which helps stimulate ovary maturation. Eggs are laid singly on the outside of the seed pod (Fig. 1a). Hatching first-instar larvae burrow into the seed pod wall, sometimes forming visible tunnels (Fig. 3a), before entering and feeding on developing seeds. The final three instar stages develop completely within seeds (Fig. 3b, left seed); there is generally one larva per seed. Pupation occurs within the seed coat. New adults emerge in late summer, leaving behind round emergence holes in seeds (Fig. 3c). Adults do not chew their way out of the seed pod, instead relying on the plant's dehiscing mechanism to escape. Seed pods dehiscence, or dry out, and burst open at maturity in order to spread their seeds, thus releasing adult beetles. Adults overwinter away from the host plant. There is one generation per year.



**SCOTCH BROOM**

	SCOTCH BROOM SEEDS	FLORISHING PLANTS, LEAFY STEMS	PODS MATURING, SEEDS SPREADING	SEEDS SPREADING	SCOTCH BROOM SEEDS SPREADING, SEED PLANTS GROWING
<i>Bruchidius villosus</i> Adult					
Egg					
Larva					
Pupa					
Adult					

Figure 2. Schematic life cycle of *Bruchidius villosus* and Scotch broom in North America. Bars indicate the approximate length of activity for each life stage. Colors will vary depending on local conditions. Black bars represent the inactive and/or overwintering period. There is typically one generation per year.

Figure 1. *Bruchidius villosus* (a) eggs are laid on broom seed pods. (b) adults are gray-black with short antennae and segmented elytra (wing covers). (c) smaller adults, Washington State University Extension

Figure 3. *Bruchidius villosus* (a) eggs are laid on broom seed pods. (b) adults are gray-black with short antennae and segmented elytra (wing covers). (c) smaller adults, Washington State University Extension



# **REQUEST FOR WSWS FELLOW AND HONORARY MEMBER NOMINATIONS**

**Now is your chance to nominate deserving colleagues as a WSWS Fellow or Honorary Member!**

## **WSWS FELLOW**

### **WSWS Guidelines for Nominating Fellows:**

**Fellows of the society are members who have given meritorious service to the Western Society of Weed Science.**

The nominator must contact the member to be nominated and request them to prepare a concise [2-3 page] resume.

- a. The nominee must be involved in the process. The most pertinent information about the nominee can only be obtained from the nominee.
- b. The nominee's resume should be based on the WSWS guidelines as currently posted on the WSWS website.
- c. Information from the resume will be used by the nominator in writing the letter of nomination.
- d. The nominator is also responsible for soliciting two letters of support for the nominee. The letters should be sent to the nominator and included in the nomination package sent to the committee.
- e. The nomination package should include the nominee's vita, the nominator's letter of nomination, and two support letters.

### **SERVICE TO WSWS – Please address the following points in the resume:**

1. Honors, awards and recognitions by professional societies and private institutions.
2. Positions held in professional societies, companies, or institutions.
3. A brief summary of presentations and published books, book chapters, research, extension, and technical publications.
4. Academic and Industry Weed Science Endeavors in research, development, teaching, educational and extension contributions.
5. Other Meritorious Weed Science Service.

## **WSWS HONORARY MEMBER**

### **WSWS Guidelines for Nominating Honorary Members:**

**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.**

The nominator will send a complete single pdf file nomination package to the WSWS Fellow and Honorary Member Committee Chair.

The package should consist of:

1. The nomination letter written by the nominator summarizing the nominee's contribution to the area of weed science with emphasis on how the interests of the WSWS have been served by the non-member.
2. The nominee's resume. It is the nominator's responsibility to coordinate the nomination and to assure that it is complete and submitted before the deadline. The nominator must contact the person to be nominated and request them to prepare a vita.
3. The nominator will then prepare a letter summarizing the nominee's contribution to the area of weed science with emphasis on how the interests of the WSWS have been served by this non-member.
4. Include the vita with the letter of nomination to provide all pertinent information to the Committee.

**NOMINATIONS FOR FELLOW AND HONORARY MEMBER PACKAGES ARE DUE BY DECEMBER 1, 2023**

Send To:

*Electronic submission preferred.*

Dr. Rich Zollinger

[r.zollinger@ndsu.edu](mailto:r.zollinger@ndsu.edu)

(509) 209-0324

## 2024 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 16, 2023**.

**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 16, 2023**:

Harry Quicke

[harry.quicke@envu.com](mailto:harry.quicke@envu.com)

# WASHINGTON REPORT

July 31, 2023

Lee Van Wychen

## Weed Science Society Presidents Visit Washington DC.

During the week of April 17, the presidents from the four regional weed science societies and WSSA traveled to Washington DC to advocate on behalf of weed science policy initiatives and help WSSA achieve its mission of promoting research, education, and awareness of weeds in managed and natural ecosystems. Our primary mission during the week was meeting with the president's elected members of Congress and their staff from their home states. We discussed an array of weed science related topics, including:



*Pictured (L to R): **Wes Everman**, NC State, NEWSS President; **Curtis Rainbolt**, BASF, WSSS President; **Carroll Moseley**, Syngenta, WSSA President; **Eric Castner**, FMC, SWSS President; and **Reid Smeda**, University of Missouri, NCWSS President*

- Support \$8 billion in mandatory agricultural research funding in the next Farm Bill. U.S funding peaked in 2002 and has declined by 1/3 since then, hitting the lowest levels since 1970. While U.S. investments decline, China's funding for ag research has grown to more than \$10 billion – **double of what the U.S. currently spends**. Current U.S. ag research funding is just under \$5 billion and most of that is discretionary funding that relies on year-to-year appropriations from Congress.
- Support USDA-NIFA IR-4 Project funding at \$25 million in FY 2024. The IR-4 Project was funded at \$15 million in FY 2023.
  - There is a phenomenal need for specialty crop protection products to help feed the world. The IR-4 Project was established in 1963 by USDA to conduct research and develop the data needed to facilitate the registration of crop protection products, including reduced risk and bio-based pesticides, for minor use crops such as fruits, vegetables, herbs, spices, ornamental plants and other horticultural crops. The IR-4 Project provides an incredible return on investment as it contributes \$8.97 billion to the annual U.S. GDP.
- Support the USDA-NIFA Crop Protection and Pest Management (CPPM) program at \$25 million in FY 2024. The CPPM program was funded at \$21 million in FY 2023.
  - The CPPM program is a highly effective competitive grant program that tackles real world weed, insect, and disease problems with applied solutions through the concepts of integrated pest management (IPM). The CPPM also funds the Regional IPM Centers and Extension IPM programs.
- Amend the definition of a “plant pest” in the Plant Protection Act so that it includes noxious weeds and invasive plants. Currently, only “parasitic plants” are listed in the definition of “plant pest” (7 USC 104, S.7702 – Definitions, (14) Plant Pest, (C)).
  - USDA-APHIS receives almost \$400 million per year in their Plant Health account to prevent the introduction and spread of “plant pests” in the U.S., but only a

fraction goes toward weed prevention and surveillance. One example is their “Plant Pest” and Disease Management and Disaster Prevention (PPDMDP) program,, which directs \$75 million a year to state governments, universities, non-profit institutions, industry, and tribal nations – to support projects that protect specialty crops, nursery systems, forestry, and other agricultural production systems and natural resources from harmful and exotic “plant pests.” Very few of the 300+ “plant pest” projects supported by the PPDMDP involve noxious weeds or invasive plants.

The weed science society presidents also attended a number of other events and receptions while on Capitol Hill. This included a House Ag Committee hearing with EPA Administrator Michael Regan. This was the first time an EPA Administrator testified to the House Ag committee since 2016. They also attended a Senate Ag Committee hearing to examine Farm Bill policy, focusing on making conservation programs work for farmers and ranchers.

Off the Hill, they met with the American Soybean Association and attended the National Coalition for Food and Agricultural Research (NCFAR) board of directors meeting, which featured a lively discussion of agriculture research priorities in the next Farm Bill. They also attended part of the CropLife America (CLA) – Responsible Industry for Sound Environment (RISE) Spring Regulatory Conference where the keynote speaker was Rod Snyder, Senior Advisor for Agriculture to EPA Administrator Regan.

Another highlight of the CLA RISE Spring Conference was the retirement reception for Ray McCallister. He is a lifetime weed scientist and a member of WSSA’s Science Policy Committee. Ray is highly regarded here in DC for his expertise on pesticide regulatory policy. He semi-retired from CLA on April 1 after 33 plus years of service. Ray’s contact info is (202-577-6657) and [rsm6consulting@gmail.com](mailto:rsm6consulting@gmail.com). Congratulations Ray!

Many thanks to presidents’ Carroll Moseley, Reid Smeda, Wes Everman, Eric Castner, and Curtis Rainbolt for their professionalism and leadership during the week. I can assure you that the national and regional weed sciences are in good hands! I’d also like to thank them for taking the time out their busy schedules to travel to DC.

### **USDA Announces New USDA NIFA Director**



On April 24, USDA announced the appointment of Dr. Manjit K. Misra as the new Director of the National Institute of Food and Agriculture (NIFA). Dr. Misra started new role on Monday, May 8, 2023.

Prior to joining USDA, Dr. Misra served as a Professor of Agricultural and Biosystems Engineering at Iowa State University. For more than 30 years, he was Director of the university’s Seed Science Center. The center has administered the National Seed Health System, authorized by USDA APHIS since 2001. Dr. Misra also was founding Director of Iowa State’s Biosafety Institute for Genetically Modified Agricultural Products.

In 2012, Dr. Misra was appointed Chair of the USDA National Genetic Resources Advisory Council (NGRAC), a position he held until 2017. Misra has served on more than 60 local, national, and international boards and committees. These include the Steering Committee for the Food and Agriculture Organization’s (FAO) International Conference on Biotechnology, the Scientific Advisory Council of the American Seed Research Foundation, the Board of Directors of the Iowa Seed Association, the Iowa Crop Improvement Association, and the First the Seed Foundation.

Dr. Misra earned a Bachelor of Science in Agricultural Engineering in India, a Master of Science and a Doctor of Philosophy in Agricultural Engineering at the University of Missouri-Columbia. He is a researcher with 137 publications and an innovator with ten patents. During his tenure as the Director of the Seed Science Center, the faculty and staff conducted seed programs in 79 countries, including 34 countries in Africa.

### **Support for FY 2024 Appropriations and Farm Bill**

Since January, the national and regional weed science societies have signed onto five ag research coalition letters that have been submitted to Congress regarding the Farm Bill and the FY 2024 budget. Current requests for the FY 2024 budget include:

- Provide \$2.080 billion for the USDA NIFA research, providing increased support for the ag research capacity programs such as the Hatch Act and Smith Lever Act that are fundamental to the extramural research, education, and Cooperative Extension system. This includes:
  - \$300 million in FY 2024 for the Hatch Act account, which supports 1862 land-grant university federal - state partnerships
  - \$108 million in FY2024 for the Evans-Allen account to provide capacity funding for food and agricultural research at the 1890 land-grant universities and Tuskegee University
  - \$46 million to support McIntire-Stennis Cooperative Forestry research, which investigates carbon sequestration, the development of bio-based products, and the prevention of forest fires
  - \$420 million in Smith-Lever3(b) and 3(c) funds to support the Cooperative Extension System
  - \$88 million for the Extension Services of 1890 land-grant universities
  - \$17.5 million in FY2024 for Tribal Colleges Extension
  - Provide \$500 million in funding for the Agriculture and Food Research Initiative (AFRI), USDA's premier competitive research program.
- Provide \$500 million in funding for the Research Facilities Act
  - A 2021 Association of Public and Land-Grant Universities (APLU) report found that 70% of research facilities at US public agricultural colleges are at the end of their useful lives, with **\$11.5 billion in deferred maintenance**. The Research Facilities Act allows for the construction of modern facilities at colleges that support agricultural research, which will increase pest and disease preparedness and the use of advanced technologies nationwide.
- Provide \$1.95 billion for the Agricultural Research Service (ARS)
  - As the USDA's principal in-house research agency, ARS is one of the only funding sources available for long-term agricultural research. The ARS labs and research sites foster synergistic research collaborations across scientific disciplines and geographic locations. This funding would also help address ARS infrastructure improvements critical to carrying out its research responsibilities.
- Provide at least \$50 million in funding for the Agriculture Advanced Research and Development Authority (AGARDA).
  - Advanced research agencies have been effectively deployed in defense (DARPA), energy (ARPA-E), and health (ARPA-H) to tackle the biggest challenges facing those areas in novel and groundbreaking ways. AGARDA was established in the 2018 Farm Bill and modeled after DARPA, ARPA-E, and ARPA-H. When funded, AGARDA will foster research, development, and technology transfer, resulting in significant benefits across the US food and agriculture value chain.

## **USDA Unveils New Tool to Track Federally Funded Investments**

USDA has released **two new data dashboards** that allow users the unprecedented ability to access high-level data about NIFA's agricultural research funding investments and track the status of their grant applications.

The public can now access, download, and save data on all NIFA competitive and capacity funds granted since FY 2018. This tool offers users the ability to pull information on funding investments by research program and grant type, congressional district, recipient (including land-grant, minority-serving institutions, tribal, Hispanic-serving institutions, and Extension), and other focused searches.

The [\*\*NIFA Grant Funding Dashboard\*\*](#) allows users to search for information related to requirements, waivers, and the amount of match funding provided by recipient type and award. Users can also explore a funding map to find NIFA funding obligations by states and congressional districts. The [\*\*NIFA Application Status Dashboard\*\*](#) enables users to quickly check the status of their application using their assigned Grants.gov tracking number.

**Learn more about these new tools.**

## **A Survey of Weed Research Priorities: Key Findings and Future Directions**

The WSSA Research Priorities Committee published the results of their weed research priorities survey in *Weed Science* on June 13, 2023. The survey was conducted in 2021/2022. The last time there was a published report of weed science research priorities was in 2007. The paper authors are: Daniel C. Brainard, Erin R. Haramoto, Ramon G. Leon, James J. Kells, Lee R. Van Wychen, Pratap Devkota, Mithila Jugulam, Jacob N. Barney. DOI: 10.1017/wsc.2023.24 Abstract:

*We conducted an online survey of weed scientists in the US and Canada to 1) identify research topics perceived to be important for advancing weed science in the next 5-10 years, and 2) gain insight into potential gaps in current expertise and funding sources needed to address those priorities. Respondents were asked to prioritize nine broad research areas, as well as five to ten subcategories within each of the broad areas. We received 475 responses, with the majority affiliated with academic institutions (55%) and working in cash crop (agronomic or horticultural) study systems (69%). Results from this survey provide valuable discussion points for policymakers, funding agencies, and academic institutions for allocating resources for weed science research. **Notably, our survey reveals a strong prioritization of Cultural and Preventative Weed Management (CPWM) as well as the emerging area of Precision Weed Management and Robotics (PWMR).** Although Herbicides remain a high-priority research area, continuing challenges necessitating integrated, non-chemical tactics (e.g., herbicide resistance) and emerging opportunities (e.g., robotics) are reflected in our survey results. Despite previous calls for greater understanding and application of weed biology and ecology in weed research, as well as recent calls for greater integration of social science perspectives to address weed management challenges, these areas were ranked considerably lower than those focused more directly on weed management. **Our survey also identified a potential mismatch between research priorities and expertise in several areas including CPWM, PWMR, and Weed Genomics, suggesting that these topics should be prime targets for expanded training and collaboration.** Finally, our survey suggests an increasing reliance on private-sector funding for research, raising concerns about our discipline's capacity to address important research priority areas that lack clear private-sector incentives for investment.*

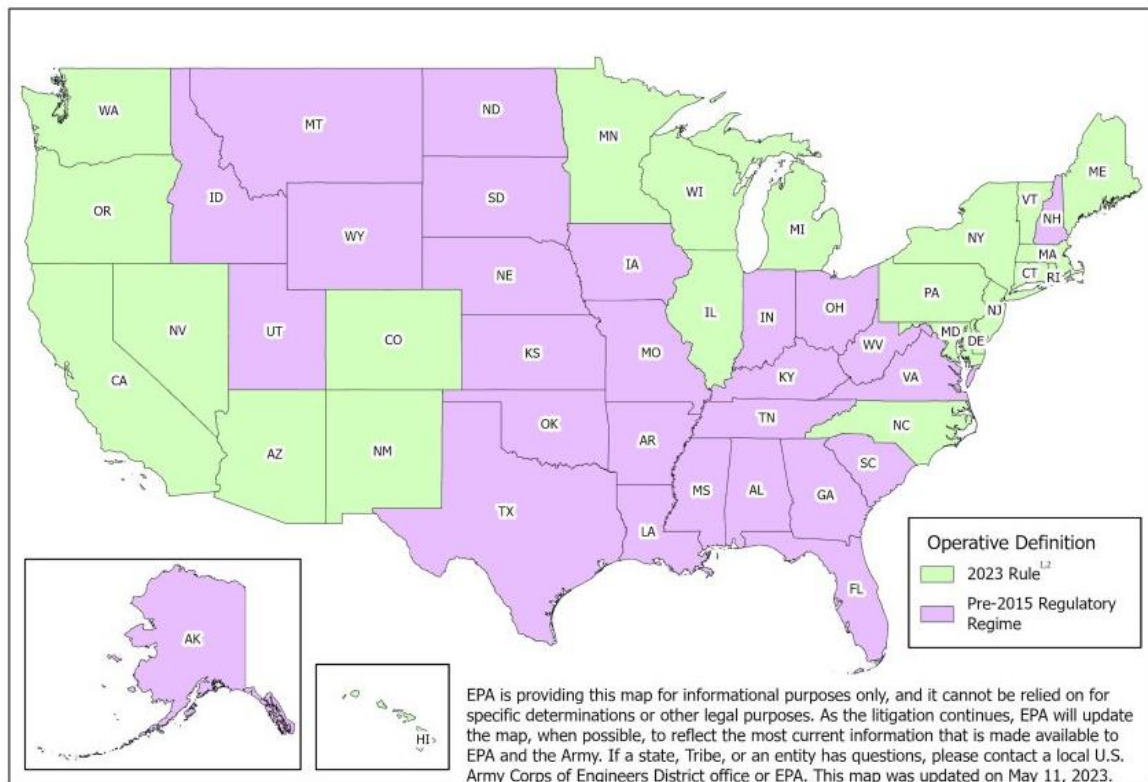
## Supreme Court Rules on Waters of the United States

The US Supreme Court released its opinion on May 25 in *Sackett v. EPA* and ruled in favor of the Sacketts. All **nine members of the court rejected** the federal government's "**significant nexus**" test, which was crafted by former Justice Anthony Kennedy in the 2006 *Rapanos* decision. In other words, the "significant nexus test" is no longer an appropriate measure to determine a Water of the United States (WOTUS). Although there was a 5-4 split over what the test should be, not one justice attempted to defend "significant nexus" as an appropriate test.

The Court held that for a wetland to qualify as a WOTUS and be subject to federal regulation, there must be a **continuous surface connection** to a waterbody. Justice Alito's majority opinion said "adjacent" wetlands have to be close enough to other waters covered by the Clean Water Act (CWA) as to be indistinguishable. It also said the "significant nexus test" results in an unchecked definition of WOTUS which means that a staggering array of landowners are at risk of criminal prosecution or onerous civil penalties.

Justice Brett Kavanaugh, in the minority opinion joined by Justices Sonia Sotomayor, Elena Kagan and Ketanji Brown Jackson, said the majority engaged in a rewriting of the law by interpreting "adjacent wetlands" to mean "adjoining." Kavanaugh, however, noted that in 1977, Congress added "adjacent" wetlands to the definition of WOTUS in the law. "**Adjacent wetlands**" means not only wetlands adjoining covered waters but also those wetlands that are separated from covered waters by a manmade dike or barrier, natural river berm, beach dune, or the like. Thus, "adjacent wetlands" includes more WOTUS than "adjoining wetlands."

## Operative Definition of "Waters of the United States"



<sup>1</sup>Also operative in the U.S. territories and the District of Columbia

<sup>2</sup>The pre-2015 regulatory regime is operative for the Commonwealth of Kentucky and Plaintiff-Appellants in *Kentucky Chamber of Commerce, et al. v. EPA* (No. 23-5345) and their members (Kentucky Chamber of Commerce, U.S. Chamber of Commerce, Associated General Contractors of Kentucky, Home Builders Association of Kentucky, Portland Cement Association, and Georgia Chamber of Commerce).

EPA is expected to release post-Sackett guidance soon. However, as a result of on-going litigation, 27 states (in purple) should use the **pre-2015 regulatory rule** where WOTUS are:

1. Traditional interstate navigable waters
2. Relatively permanent bodies of water connected to traditional interstate navigable waters
3. Wetlands that have a continuous surface connection with either (1) or (2)

The May 25<sup>th</sup> WOTUS decision in *Sackett v EPA* is also another sign that the Supreme Court may reverse the **Chevron doctrine**. The Chevron doctrine is an administrative law principle that compels federal courts to **defer to a federal agency's interpretation** of an ambiguous or unclear statute that Congress delegated to the agency to administer. The principle derives its name from the 1984 U.S. Supreme Court case *Chevron U.S.A., Inc. v. Natural Resources Defense Council, Inc.* The Supreme Court has already signaled its concern for agency interpretations of existing law, ruling in a case last year that EPA exceeded its authority in regulations designed to curb greenhouse gas emissions from power plants.

### **LSU and Army Corps of Engineers Host Aquatic Weed Tour in Louisiana**



*Pictured (L to R): **Kristy Crews**, Product Manager, EPA Office of Pesticide Programs (OPP) Registration Division (RD), Fungicide Branch; **Jessica Post**, Economist, EPA OPP Biological and Economic Analysis Division, **Francisco Llarena-Arias**, Environmental Protection Specialist, EPA OPP RD, Fungicide and Herbicide Branch; **Chris Mudge**, Research Biologist: U.S. Army Engineer Research & Development Center and Adjunct Professor: LSU School of Plant, Environmental & Soil Sciences; **Jeremy Crossland**, US Army Corps of Engineers, Land Uses and Natural Resources Program Manager; and **Lee Van Wychen**, WSSA Executive Director of Science Policy.*

During the week of June 5, I had the chance to tour Dr. Chris Mudge's aquatic weed research trials at LSU along with staff from the EPA and Army Corps of Engineers. We also got to explore the different aquatic weed problems they face in the Atchafalaya National Wildlife Refuge (NWR) and Lake Henderson. The Atchafalaya NWR is approximately 44,000 acres and encompasses Lake Henderson, which was formed by man-made levees in the 1930's and serves as a relief outlet for the Mississippi River. The elevation of Lake Henderson is set at 9 feet above mean sea level (MSL), but can range from 6 feet MSL to 18 feet MSL. From August through October, the lake is lowered to 6 feet MSL. These draw-downs expose the lake bottom, which helps to control aquatic plant infestations like water hyacinth, hydrilla, giant salvinia and Cuban bulrush.

I would like to send a special thank you to Dr. Mudge and his staff for organizing the tour and sharing their knowledge and expertise on aquatic weed management. It takes a lot of work to set these tours up, especially for aquatic weeds where you have to line up airboats to tour some of the swamps and bayous. We got some unique insights into the aquatic weed management challenges faced by the Louisiana Department of Wildlife and Fisheries and Army Corps of Engineers.

*Touring Belle River in the Atchafalaya National Wildlife Refuge about 30 miles west of Baton Rouge, LA. Dr. Chris Mudge attempts to drive his boat through an untreated area full of giant salvinia. Note: behind us is open water that has been treated by the Louisiana Department of Wildlife and Fisheries.*



## **EPA Floats Rule To Help States And Tribes Gain CWA Powers**

In the *Sackett* case, the Supreme Court also affirmed that states have the “primary” responsibility to prevent water pollution. Under the Clean Water Act (CWA) states can get EPA authorization to take over wetlands permitting, which is generally handled by the Corps of Engineers. Three states currently have such authority – **New Jersey, Michigan and Florida.**

On July 19, the EPA announced a proposed rule to revise the CWA Section 404 Tribal and State Program Regulations. EPA says the proposed regulatory revision will streamline and clarify the requirements and steps necessary for states and Tribes to administer their own programs from protecting waterways from discharges of dredged or fill material without a permit.

The proposal also provides direction on how a state or Tribe can demonstrate their program is consistent with and no less stringent than federal requirements, and how they can ensure that their permits they issue are consistent with the substantive environmental permit review criteria as laid out by EPA for section 404 permits.

**Proposed Rule:** Clean Water Act Section 404 Tribal and State Program Regulation EPA-HQ-OW-2020-0276; FRL-6682-02-OW (pdf)

## **Weed Science Societies Support Agricultural Labeling Uniformity Act (HR 4288)**

Below is a support letter for H.R. 4288, the Agricultural Labeling Uniformity Act that was sent to Congressional leaders. This is a bipartisan bill sponsored by Reps. Dusty Johnson (R-SD) and Jim Costa (D-CA) regarding FIFRA pesticide labeling uniformity. The six national and regional weed science societies endorsed the letter (below) along with 355 other signers.

*We write to express our great concern with recent misinterpretations of long-standing policy regarding the regulation and labeling of pesticide products, as some states have begun to regulate pesticides in a manner contradicting decades of scientific guidance from the Environmental Protection Agency (EPA). Lack of certainty on EPA-approved, science-based nationwide labels will erode access to current and future pesticides, threatening crops and grower incomes, conservation practices, public health, vital infrastructure, and ultimately raise food prices for families amidst record-high inflation.*

*Growers and users need reaffirmation from Congress that while **states have authority to regulate the sale and use of pesticides within their jurisdiction, they cannot impose labeling or packaging requirements in addition or different from the scientific conclusions of the EPA.***

*To that end, we support and urge Congress to enact **H.R. 4288, the Agricultural Labeling Uniformity Act**, bipartisan legislation which would reaffirm federal pesticide labeling uniformity and prevent state and local governments from adopting inconsistent labeling or packaging which would disrupt commerce and access to these vital tools.*

## **EPA Releases New Interactive Maps of Data Used in Endangered Species Act Assessments**

The EPA is making the geographic data used to conduct Endangered Species Act (ESA) assessments for pesticides publicly available for the first time via interactive maps. These data are not new. Rather, EPA is making existing data broadly accessible and

providing a new tool to help users access the data. The maps also show which crops are grown near these species and habitats, which can help users determine which pesticides might be used in these areas. EPA relies on the Fish and Wildlife Service and National Marine Fisheries Service (the Services) for information on the biology and location of listed species. As the Services continue to learn more about where some listed species are likely located, information will be updated and refined in the maps.

Prior to this, EPA was technologically unable to release all its ESA Geographic Information System (GIS) data because of the amount of data involved, but advances in technology have allowed EPA to overcome this problem. The maps allow anyone to access the GIS data online, and are particularly useful for federal, state, and local governments, tribal partners, environmental organizations, and pesticide registrants who want to conduct their own endangered species analysis.

Users will have access to information that may be incorporated into future ESA evaluations. EPA will update the spatial data it uses for its ESA analyses on a regular basis and will post updates as they occur. Visit EPA's website to learn more about these new maps and how to use them.

### **EPA FIFRA SAP on Atrazine is a Virtual Meeting from August 22 – 24.**

The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) Scientific Advisory Panel (SAP) provides independent scientific advice to the EPA on health and safety issues related to pesticides. There was a call for nominations this summer for an SAP on the “**Examination of Microcosm/Mesocosm Studies for Evaluating the Effects of Atrazine on Aquatic Plant Communities**”.

I have verified that four of the “approximately 8-12 members” of the SAP are WSSA and APMS members: 1) Aaron Hagar, University of Illinois; 2) Jay Ferrell, University of Florida; 3) John Madsen, retired USDA-ARS, and 4) Kurt Getsinger, US Army Corps of Engineers. The SAP will take place August 22-24, 2023, from 10 a.m. to approximately 5:30 p.m. (ET). The public virtual meeting will be held via a webcast platform. You must register to receive the links. More info at: <https://www.regulations.gov/document/EPA-HQ-OPP-2023-0154-0001>

### **Culpepper and Chism Present Capitol Hill Seminar on Endangered Species Issues**

On July 11, approximately 70 Congressional staffers and interested stakeholders attended a seminar in the House Agriculture Committee hearing room titled: “**Protecting Endangered Species While Feeding the World**”. The seminar was presented by Dr. Stanley Culpepper and Dr. Bill Chism and organized by me through WSSA's membership in the National Coalition for Food and Agricultural Research (NCFAR).



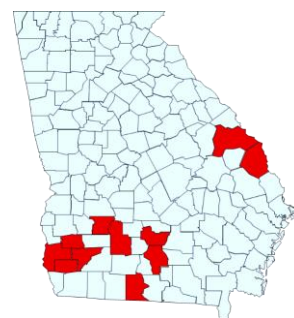
*Dr. Bill Chism, chair of WSSA's Endangered Species Committee, talks to Hill staffers about “Protecting Endangered Species While Feeding the World.” (Not pictured: Stanley Culpepper)*

The event sponsors were: WSSA, the National Association of State Departments of Agriculture (NASDA), the Extension Committee on Organization and Policy (ECOP), CropLife America (CLA), and Syngenta. Additional collaborators were the National Corn Growers Association (NCGA) and the American Soybean Association (ASA).

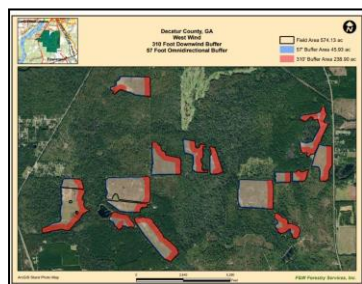
### One-Page Leave Behind:

*Fifty years ago, the **Endangered Species Act (ESA)** was signed into law to protect and conserve imperiled species from extinction. Few understand the complexities and challenges associated with this Act and how it potentially threatens agriculture, family farm sustainability, and having an ample supply of food, feed, and fiber needed by humankind.*

*In an abundance of caution to protect species listed under the ESA and help minimize the risk of litigation, the **U.S. EPA has been inserting large spatial buffers** on certain pesticide labels that restrict applications in counties where listed species may be present. For example, an herbicide was eliminated from use on approximately one million acres in 11 counties in Georgia. However, after further research, only 0.37 percent of the total acres in those counties represented suitable habitat. Although the effort of protection is important and supported by agriculture, current label restrictions are excessive in some situations as restrictions are not based on high-resolution data where a species likely occurs nor where and how pesticides are applied.*



County-wide restrictions



In-field downwind buffers (in red)

*While entire counties have been removed from some product labels, EPA has also imposed in-field restrictions to mitigate potential off-target movement such as conservation practices to reduce runoff and no-spray buffers to reduce spray drift. For example, some required downwind buffers could eliminate as much as 49.6% of the field from a product application. These restrictions are preventing the use of tools needed to control threatening weedy pests in fields that are nowhere near the documented historical habitats of concerned species.*

*As the **number of farms decline** rapidly and the **loss of U.S. agricultural land exceeds 200 acres every hour**, there is an expectation that we will need to **produce 70% more food by 2050** to sustain a growing population. This monumental task will only be accomplished if economically effective tools are available helping farmers prevent pests from stealing food, feed, and fiber.*

*Methods developed from sound science can protect both concerned species and agriculture; in fact, protecting agriculture is the key to providing healthy habitats for wildlife. **Funding is needed to help educate farmers on ways to protect endangered species, create better maps of where species occur, and research additional ways to reduce the risks from pesticides.***

### **EPA Did Not Find PFAS in Pesticide Products Tested**

On May 30, EPA released a summary of the laboratory analysis of 10 pesticide products reported to contain per- and polyfluoroalkyl substances (PFAS) residues. **EPA did not find any PFAS in the tested pesticide products**, differing from the results of a published study in the Journal of Hazardous Materials. EPA also released its newly developed and validated analytical methodology used in the testing process alongside the summary of its findings. EPA is confident

in the results of this newly released method, which is specifically targeted to detect the presence of PFAS in pesticide products formulated with surfactants.

Since learning about potential PFAS contamination in a small number of mosquitocide products in September 2020, EPA has taken a number of steps to address this issue. This includes [releasing data in March 2021](#) that preliminarily determined that PFAS in those specific products was most likely formed from a chemical reaction during the container fluorination process which then leached into the pesticide product, [releasing another study in September 2022](#) testing the leaching potential of PFAS over a specific time into test solutions packaged in different brands of HDPE fluorinated containers, and [notifying manufacturers \(including importers\), processors, distributors, users, and those that dispose of fluorinated HDPE containers and similar plastics](#) that the presence of PFAS formed as a byproduct in these containers may be a violation of the Toxic Substances Control Act.

Following that notification, the Department of Justice, on behalf of EPA, filed a complaint against Inhance, the company that manufactured the plastic mosquitocide containers in which PFAS was found, for its failure to comply with TSCA's notice, review, and determination requirements prior to manufacture.

As a continuation of these ongoing efforts, EPA has completed its verification analysis of a study published in September 2022 in the Journal of Hazardous Materials entitled "[Targeted analysis and Total Oxidizable Precursor assay of several insecticides for PFAS](#)." This study reported the presence of PFOS in six of 10 pesticide products tested. EPA evaluated the 10 pesticide products included in this study using two different test methods to detect PFAS. The first method was developed by the Agency to specifically measure PFAS in pesticide samples containing surfactants and non-volatile oils, and the second method was used in the study published in the Journal of Hazardous Materials.

EPA obtained samples of the specific pesticide products from the study author and purchased additional products with the same EPA registration numbers on the open market to conduct analyses. EPA tested all samples using both methods and did not detect the presence of PFOS, nor any of 28 additional PFAS it screened for, above the lowest level that our lab instruments can detect (0.2 parts per billion) in any of the pesticide products using either method of detection. The equipment and methodology used by EPA would have shown PFAS detections if present in those pesticide products given that their level of detection (LOD) is 2,500 times more sensitive than the LOD reported by the equipment used by the study author.

EPA requested additional information, including raw data from the study author, but did not receive any beyond the published results. EPA's study [report](#) contains additional scientific details regarding how the two methods differ and the significance of using the Agency's new method when testing these specific formulations.

One of the most important differences between the two methods is that EPA's [method](#) ensures accurate measuring of PFAS by eliminating interference from the oils and surfactants present in these formulations which can result in false positive detections.

EPA will continue to invest in scientific research to fill gaps in understanding of PFAS, to identify which PFAS may pose human health and ecological risks at which exposure levels and develop methods to better test and measure them.

### **A Future Without Glyphosate Report**

A new study from Aimpoint Research finds that if glyphosate were no longer available, U.S. farmers would bear the burden of increased input and operating costs, with small

farmers disproportionately affected. Further analysis reveals a cascading chain of likely higher-order effects and unintended consequences, the most impactful being the rapid release of additional greenhouse gases and the reversal of decades of conservation and sustainability gains. Key points from the report:

- Farmers' profits fall as labor costs rise and they turn to more expensive glyphosate alternatives.
- Use of alternatives would represent a 2-2.5X increase in cost/acre while switching to tillage could increase production costs by \$1.9B+
- Small farmers are hit the hardest by decreased profits.
- Costs to consumers rise as food prices experience marginal, inflationary pressures.
- CO<sub>2</sub> emissions and fuel use increases

A Future Without Glyphosate: <https://report.aimpointresearch.com/>

### **USDA-ARS NPL Steve Young Publishes Quarterly Weed Science Newsletter**

Dr. Steve Young, National Program Leader (NPL) for Weeds and Invasive Species at USDA-ARS is now publishing a quarterly newsletter about ARS weed science research news and highlights. It's an excellent short read on current weed science research, events and announcements such as recent ARS weed science hires, as well as completed searches and current openings.

#### **Recent Hires**

- Mark Bernards – ARS Soil Management Research Unit, Morris, Minnesota
- James Kim – ARS Sugarbeet and Potato Research Unit, Fargo, North Dakota
- Dale Halbritter – ARS Invasive Plant Research Lab, Fort Lauderdale, Florida

#### **Completed Searches**

- Chemist – ARS Natural Products Utilization Research Unit, Oxford, Mississippi
- Weed Scientist – ARS Crop Production Systems Research Unit, Stoneville, Mississippi
- Research Leader – ARS Invasive Plant Research Lab, Fort Lauderdale, Florida

#### **Current Openings**

- Aquatic Invasive Plant Ecologist – ARS Invasive Species and Pollinator Health Research Unit, Albany, California (6-12-23 to 7-11-23): <https://arscareers.usajobs.gov/job/731291100>
- Weed Geneticist – ARS Wheat Health, Genetics, and Quality Research Unit, Pullman, Washington (6-21-23 to 7-21-23): <https://www.usajobs.gov/job/732775300>
- Weed Ecologist – ARS Columbia Plateau Conservation Research Center, Pendleton, Oregon (TBD)
- Weed Scientist – ARS Northwest Sustainable Agroecosystems Research Unit, Pullman, Washington (TBD)

Download the Summer 2023 ARS Weed Science Newsletter or Subscribe to Newsletter.

### **Status of FY 2024 House Interior, Environment and Related Agencies Appropriations**

This appropriations bill sets funding levels for EPA and the US Fish and Wildlife Services (FWS) programs. The House committee cut EPA's budget to its lowest level since 1991. However, many of the provisions that the national and regional weed science societies supported, along with many other stakeholder groups, were in the House bill. Here is a summary:

- **Pesticide Program Funding** – The Committee report recommended funding the pesticide licensing program at \$120M for FY24, which is the same as the final funding level enacted for FY23. While it may seem disappointing not to have received an increase given that we

requested \$145M, please note that the entire Environmental Programs and Management account, where the pesticide licensing program is housed, received a \$857M cut.

- **FWS Consultation Funding** – The Committee report recommended providing no less than \$2M for pesticide-specific ESA consultations at FWS. While we requested \$3M, this is still a significant accomplishment given that the report recommends cutting \$12M or 10.0% from FY23 enacted levels for the whole FWS planning and consultation account
- **FIFRA Labeling Language** – We requested bill language specifying that no funds may be used by EPA to approve labels inconsistent with the agency’s human health findings under FIFRA. That language was included in the appropriations bill text.
- **EPA Pesticide Implementation Language** – We requested several language related provisions related to 1) what types of data EPA must consider in its ESA effects determinations (existing conservation data, pesticide usage data, real-world spray drift and water concentration studies, etc.) 2) directing the agency to consult with USDA/impacted stakeholders on mitigations and pilot projects pre-publication, and 3) direct the agency to ensure that epidemiological studies used by EPA meet data quality standards and can be independently verified. All this language was included in the appropriations committee report as well as directives for EPA to update its guidance on these matters as necessary.
- **Sub-County Species Level Maps Language** – We requested language directing FWS to, when possible, develop subcounty level species range maps. This language was included in the House Interior Appropriations committee report as well.
- NOTE: The House Interior Appropriations Committee bill is **only the first step** in this process!

### **National Invasive Species Awareness Week (NISAW)**

NISAW 2023 was held virtually from February 20-26 and organized by the North American Invasive Species Management Association (NAISMA). Sponsors included the WSSA, Wyoming Weed and Pest Council, Washington Invasive Species Council, SePRO, UPL, Pacific States Marine Fisheries Commission, and Bayer.

**NISAW 2024 is scheduled for February 26 – March 3, 2024 in Washington DC.** This will be the 25<sup>th</sup> anniversary and planning is already under way. My hope is that all the invasive species stakeholder groups traveling to Washington DC will make **establishing an invasive species management fund** their #1 priority. (see below)

### **Establishing an Invasive Species Management Fund**

A common theme during the **Invasive Species Advisory Committee (ISAC)** meeting held virtually on March 6 – 8, and the first ISAC meeting since 2019, is that we need a consolidated all-purpose **source of funding for invasive species prevention, research, and management.**

Global trade provides many benefits to us as consumers, but there is no question that one of the indirect costs is the importation of invasive species, whether intentional or unintentional. I have begun work on Capitol Hill discussing legislation similar to what Hawaii passed into law in 2008 (HB2843) where an inspection, quarantine, and eradication service fee was assessed on the net weight of freight, computed on the basis of **50 cents for every 1,000 pounds of freight** brought into the state.

-As an example, there would be a \$3 fee assessed for a 6,000 pound SUV imported into the U.S. A rough estimate of U.S. import data suggests that this inspection, quarantine, and eradication service fee would **generate about \$1 billion per year** for a federal invasive species management fund. Please email me with suggestions.

-After speaking with the Congressional Invasive Species Caucus co-chairs, Reps. Elise Stefanik-R-NY and Mike Thompson-D-CA, as well as the Senate Interior & Environment Appropriations staff, the bigger question may be who gets the money and how to prioritize invasive species management projects.

Lee Van Wychen, Ph.D.  
Executive Director of Science Policy  
National and Regional Weed Science Societies  
[Lee.VanWychen@wssa.net](mailto:Lee.VanWychen@wssa.net)  
(202) 746-4686

## 2023 Membership Renewal Form

To pay by credit card, please login to your account at [www.wsweedscience.org](http://www.wsweedscience.org)

**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 PROVIDED.**

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](mailto: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

<https://wsweedscience.org/store/#!form/Store>. 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  
Westminster, CO 80234

