



# Western Society of Weed Science Newsletter

12110 N Pecos Street, Ste. 220, Westminster, CO 80234  
(303) 327-8016  
info@wsweedscience.org

WINTER 2020

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## President's Report - by Pat Clay

Hello (**Aloha**) and Happy New Year (**Hau'oli makahiki hou**). I don't know about you, but I am looking forward to the joint meeting between WSWS and WSSA at the Hyatt Regency Maui Resort and Spa (March 2-5, 2020). The weather in Fresno in the winter is not terrible but a switch from occasional fog, damp and cool to tropical

paradise will be a welcome change. Based on recent totals, it looks like meeting registration for this year has been robust and we have sold out our room block for the meeting dates. If you did not get a room at the conference hotel, please try and book at a nearby property or Airbnb/Vrbo.

Our Board meeting will be on Monday as usual. A major component of the Board Meeting will be to hear and discuss committee reports. I encourage committee chairs to reach out to your committee members and work on getting your reports completed ahead of the Annual Meeting.

I want to say a thank you very much (**mahalo nui loa**) to the combined program committee for the annual meeting for pulling together a great program and their efforts to integrate our two societies into one meeting. One event that you don't want to miss will be the Society General Session and Awards Ceremony for both organizations Monday afternoon/Evening. The Session/Awards will be followed by an awards reception, please plan to attend.

Speaking of awards, I want to thank the Awards Committee, the Fellows and Honorary Members Committee and the nominations committee. They have done great work in reviewing and selecting deserving recipients and soliciting members to run for office. I am looking forward to the announcements of the award winners as well as the new officers that you have elected to lead our society.

We will have a business meeting on Thursday morning to hear officer and committee reports from the society. We will also have an important piece of new business to consider. A proposal from the finance committee has been submitted proposing to have a new elected Board Position of Treasurer. This will require a vote of the membership to change our Constitution and By-Laws. Copies of the proposal will be emailed out to the membership prior to the meeting as well as copies provided at the business breakfast.

Wishing you all the best and safe travels (**malu huaka'i**) to Maui.

**WSWS Annual Meeting March 2-5, 2020 Maui, Hawaii**

# Student Liaison Report – Lucas Bobadilla

Hello, WSWWS students!

Happy new year! I hope all of you had time to regain your energies during this winter break. As all of you know, we are getting closer to our joint meeting in Hawaii, so make sure to stay tuned for the deadlines.

As you may know, every year, we organize our student night-out, where professionals take the students to dinner for a nice chat about future and career opportunities. This is an excellent chance to know your possibilities after school. To participate, make sure to add your name into the google sheet list at this link: **STUDENT NIGHT OUT**. For professionals, if you wish to attend please also add your name in the professional folder in the same google sheet link; Principal Investigators, please encourage your students to participate as well. Please, sign up until **February 15<sup>th</sup>** so we can organize the groups before the meeting.

For all the WSWWS members, I want to remind you about our annual silent auction used to gather funds for the Elena Sanchez scholarship. If you wish to donate an item, this year we will need a list of items prior the meeting due to resort policies, so please add your name and item information in the following link: **Elena Sanchez Scholarship Donations**. Another possibility to collaborate is with monetary donations, you can donate via our GoFundMe campaign in this link: **Elena Sanchez GoFundMe**; this is a straightforward way to donate, and you can use credit cards to donate any amount. In case you prefer to make a monetary donation in another way, please contact me for further arrangements.

I also want to remind students about the paper/poster contest for this year. This year instead of 15 minutes talk, we will have a 3-minute talk and posters being judged. Please refer to the student contest rules for guidelines about the contest: **Student Contest Rules**. If you have any questions regarding the student contest, please do not hesitate to contact Mirella or me.

I will again take this opportunity to promote student involvement in the society. If you plan to be involved in the WSWWS for the next two years, I would strongly recommend running for the student liaison position. The first year is focused on learning the role by assisting the chair. The second year is spent as chair, with the primary responsibility as representing the concerns of student members to the WSWWS board. Serving in this position has been an enjoyable experience and has helped me to learn even more about the society. I will be sending out a call for nominations for the student liaison position before the annual meeting.

There are other ways to be involved. Consider serving as the student representative to the judging committee. This is a one-year commitment, and the purpose is to bring the student's perspectives before the judging committee. Students also have the opportunity to sit in on any committee of interest. Don't forget to follow us on Facebook ([www.facebook.com/WSWSStudentSection](http://www.facebook.com/WSWSStudentSection)) and Twitter ([@WSWSstudents](https://twitter.com/WSWSstudents))!

I am looking forward to seeing all in Maui and hear about the incredible research you have been doing!

Best regards,

Lucas K. Bobadilla, Student Liaison Chair  
Mirella F. Ortiz, Student Liaison Chair Elect

[Lucask3@illinois.edu](mailto:Lucask3@illinois.edu)  
[mirella@rams.colostate.edu](mailto:mirella@rams.colostate.edu)

## Contact Us

**Newsletter Editor**

**Carl Libbey**

225 S. 10<sup>th</sup> ST

Mount Vernon, WA 98274

(360) 336-5286

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

## WSWS Officers and Executive Committees

### President

**Pat Clay**

Valent

7498 N. Remington Ave

Suite 102

Fresno, CA 93711

[Pat.Clay@valent.com](mailto:Pat.Clay@valent.com)

**Awards, Site Selection**

### President-Elect

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

### Immediate Past President

**Andrew Kniss**

University of Wyoming

1000 University Ave

Laramie, WY 82071

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

**Fellows & Honorary Members,  
Sustaining Members,  
Nominations**

### Secretary

**D. Chad Cummings**

Dow AgroSciences

382 W FM 1753

Bonham, TX 75418

[dcummings@dow.com](mailto:dcummings@dow.com)

**Necrology**

### WSSA Representative

**Marty Schraer**

Syngenta Crop Protection

152 E Cassidy Drive

Meridian, ID 83646

[marty.schraer@syngenta.com](mailto:marty.schraer@syngenta.com)

**Legislative**

# The WSWS Rita Beard Endowment Foundation Scholarship Recipients

## CAST Representative

**Brian Jenks**

North Dakota State University  
5400 Hwy 83 S.  
Minot, ND 58701  
[brian.jenks@ndsu.edu](mailto:brian.jenks@ndsu.edu)

## Member-At-Large

### Public Sector

**Lynn Sosnoskie**

University of California - Davis  
Dept. of Plant Sciences  
Davis, CA 95616  
[lynn.sosnoskie@gmail.com](mailto:lynn.sosnoskie@gmail.com)

### Finance

## Member-At-Large

### Private Sector

**Ryan Rapp**

Bayer CropScience  
40660 252<sup>nd</sup> St  
Mitchell, SD 57301

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

### Herbicide Resistant Plants

## Research Section Chair

**Brian Mealor**

University of Wyoming  
3401 Coffeen Ave  
Sheridan, WY 82801  
[bamealor@uwyo.edu](mailto:bamealor@uwyo.edu)

## Research Section Chair-Elect

**Mithila Jugulam**

Kansas State University  
Dept. of Agronomy  
2004 Throckmorton  
Manhattan, KS 66506  
[mithila@ksu.edu](mailto:mithila@ksu.edu)

## Education Section Chair

**Joel Felix**

Oregon State University  
595 Onion Ave  
Ontario, OR 97914  
[joel.felix@oregonstate.edu](mailto:joel.felix@oregonstate.edu)

### Education

### Public Relations

## Education Section Chair-Elect

**Todd Neel**

USDA Forest Service  
26 Fort Missoula Rd  
Missoula, MT 59806  
[toddaneel@fs.fed.us](mailto:toddaneel@fs.fed.us)

The Rita Beard Endowment Foundation Board of Trustees have selected three travel award scholarship recipients for 2020. They are Jaycie Arndt, an M.S. graduate student at the University of Wyoming; Michelle Majeski, an M.S. graduate student at Montana State University; and Alexandra Stoneburner an M.S. graduate student at Colorado State University and National Park Service intern. The Rita Beard Endowment Foundation is a 501 (C) (3) non-profit that was created from a generous donation from Rita Beard's family and friends to support students and early career invasive species managers with educational opportunities by providing registration and travel to professional meetings including: Society for Range Management, Western Society of Weed Science, Western Aquatic Plant Management Society and the North American Invasive Species Management Association. This year's winners will be attending the Western Society of Weed Science annual meeting (a joint meeting with the Weed Science Society of America) in March. To read more about the Foundation, learn how to apply for the 2021 scholarships, or make a donation go to: [Rita Beard Foundation Scholarship](#).

### Jaycie Arndt, University of Wyoming



My interest in invasive species began as a child on my family's ranch where I grew up loathing invasive species and yearning for a way to manage them. My education has given me the knowledge and the motivation to be a lending hand in the fight against invasive species. My research focuses on the impact of relative early emergence and growth rates of cool-season bunchgrasses on priority effects with invasive grasses. Hopefully, my research will assist management decision making and restoration efforts of western rangelands. My professional goal is to be an educator to the public and students about the management of rangelands so that we may act collaboratively, intelligently, and efficiently.

### Michelle Majeski, Montana State University



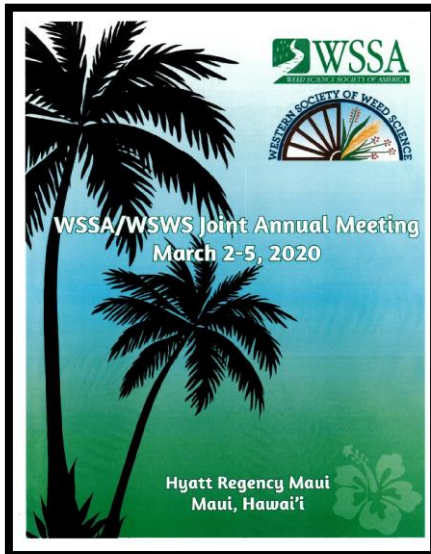
I am a master's candidate at Montana State University and will defend my thesis in Spring, 2020. My research is focused on the biology of non-native winter annual grasses to prevent further invasion in range and pasturelands. After receiving a master's degree in Land Rehabilitation, I would like to work as an invasive species plant ecologist at an agricultural research station, providing information and tools to land managers to reduce invasive plants.

**Alexandra Stoneburner, Colorado State University; National Park Service**

I began working with invasive species when I started an internship with the Invasive Plant Program of the National Park Service as an undergraduate student. During this time, I was introduced to the complexity of invasive species management and my interest was pique. While working in this position I was simultaneously being introduced to the world of rangeland management. It was the marriage of invasive species and rangeland ecology that ultimately solidified my desire to pursue a career



that meshes these disciplines. As a result, I began a master's degree in rangeland ecosystem science at Colorado State University. My research has centered around an invasive aquatic iris - yellow flag iris (*Iris pseudacorus*) and the ability to link results observed from field studies to the molecular mechanisms driving plant responses to disturbance. Over the last three years I have continued to work within the NPS Invasive Plant Program while also working towards the completion of my master's degree. The production of knowledge between researchers, managers, and practitioners related to invasive species especially in the context of rangelands, is where I hope to direct my career.



**WSSA/WSWS JOINT ANNUAL MEETING  
MARCH 2-5, 2020  
INFORMATION CAN BE FOUND AT:  
2020 ANNUAL MEETING**

**Business Manager-Treasurer**

**Eric Gustafson**  
IMI

12110 Pecos St, Suite 220  
Westminster, CO 80234  
[info@wsweedscience.org](mailto:info@wsweedscience.org)

**Constitution & Operating  
Procedures Representative**

**Tim Miller**

Washington State University  
16650 SR 536  
Mt. Vernon, WA 98273  
[twmiller@wsu.edu](mailto:twmiller@wsu.edu)

**Webmaster & Web Editor**

**David Krueger**

Apex WebStudio LLC  
PO Box 91235  
Raleigh, NC 27675  
[david@apexwebstudio.com](mailto:david@apexwebstudio.com)

**Student Liaison**

**Lucas Bobadilla**

Oregon State University  
3227 NW Orchard Ave  
Corvallis, OR 97330  
[lucas.kopeccky-bobadilla@oregonstate.edu](mailto:lucas.kopeccky-bobadilla@oregonstate.edu)

**Student Liaison Chair-elect**

**Mirella Ortiz**

Colorado State University  
1179 Campus Delivery  
Fort Collins, CO 80523  
[mirella@colostate.edu](mailto:mirella@colostate.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**  
<http://passel.unl.edu/pages/index2col.php?category=weedscience#>

**WSSA Journals Website Online**  
[www.wssa.net/publications/](http://www.wssa.net/publications/)

## CALENDAR OF EVENTS

Weed Science Society of  
America and the Western  
Society of Weed Science Joint  
Annual Meeting  
Mar. 2- 5, 2020  
Maui, Hawaii  
[www.wssa.net](http://www.wssa.net)  
[www.wsweedsociety.org](http://www.wsweedsociety.org)

Canadian Weed Science  
Society Annual Meeting  
Nov. 23-26, 2020  
Gatineau, Quebec  
[www.weedscience.ca](http://www.weedscience.ca)

North Central Weed Science  
Society Annual Meeting  
Nov. 30 – Dec. 2, 2020  
Minneapolis, MN  
[www.newss.org](http://www.newss.org)

# Herbicide Resistance Workshop

After decades of efforts, herbicide resistance is still a major challenge facing U.S. agriculture. The Weed Science Society of America created the Herbicide Resistance Education Committee in 2010 to address the need for more herbicide resistance education. Through two national summits, training modules, and most recently seven regional listening sessions, the committee has been a tremendous resource for information on how to address this complex, “wicked” problem. However, resistance continues to spread and grow and we seem to be, at times, losing the battle.

Past WSSA symposia explored in depth the nature of resistance problems. Now, the critical questions are: what can be done and what is being done about it? The committee is placing more emphasis on catalyzing resilient community formation to achieve sustainable weed management. This involves providing resources, guidance, and support to help individual communities navigate their unique socio-economic complexities toward this goal.

Several localized community efforts to deal with herbicide resistance, all quite different, have already begun. At the 2020 annual meetings in Maui, Hawaii we will be conducting a workshop “*Building a Community to Battle the Wicked Problem of Herbicide Resistance*” that will highlight progress in these community programs and will spur thought on future undertakings. Format will be an active dialog on what has worked and what has not, and we will be seeking workshop participant interaction throughout. Examples will be given from weed science efforts in several parts of the country, as well as successful entomology programs from which we can learn.

This workshop will be held at the end of the conference, on Thursday March 5<sup>th</sup> in the afternoon from 1:00 – 3:00. Thus, when you make your travel plans, be sure and include participation in this workshop in your planning!

David R. Shaw  
Herbicide Resistance Education Committee, Chair  
[david.shaw@msstate.edu](mailto:david.shaw@msstate.edu)

# A New Agent Approved for Biological Control of Yellow Starthistle

Lincoln Smith, USDA Agricultural Research Service, Albany, California

The USDA Animal and Plant Health Inspection Service (APHIS) signed a finding of no significant impact (FONSI) in August 2019 for release of the yellow starthistle rosette weevil (*Ceratapion basicorne*) for biological control of yellow starthistle (YST, *Centaurea solstitialis*).

Yellow starthistle (YST, *Centaurea solstitialis*, Asteraceae) is an annual forb that has invaded extensive areas of rangeland in the Pacific West since its unintentional introduction in the mid 1800s. The long spines on the flower heads deter grazing by most livestock and the plants are toxic to horses. Yellow starthistle originates from the Mediterranean region, where it generally occurs in low densities and appears to be under natural control. Research to discover, evaluate and introduce classical biological control agents began in the 1960s. To date, six species of insects and one rust fungus have been evaluated, permitted and introduced. Of these, five insects became established, all of which attack flowerheads and help reduce seed production. An accidentally introduced fly, the false peacock fly (*Chaetorellia succinea*), has also become established. Although the insects may attack as much as 90% of the seed heads in some years at some sites, the combined effect of these natural enemies does not appear to have significantly reduced YST over most of its range. Comparative life history studies of the plant in California and Turkey suggest that natural enemies that damage the rosettes may be most effective for reducing YST populations. Additional agents are needed, especially ones that attack the foliage, stem, and roots of rosettes and young bolting plants.



Yellow starthistle flower head and rosette

The rosette weevil (*Ceratapion basicorne*) occurs from Spain to Armenia, and as far north as Germany. It has one generation per year. Adults feed on rosette leaves and lay eggs in the leaves in early spring. Larvae tunnel down the leaf midribs and feed inside the upper root. Pupation occurs inside the host plant, and adults emerge in June, when plants are bolting. Newly emerged adults feed and mate, but females are in reproductive diapause and will not lay eggs until the following spring. It is not known where the adults overwinter, although specimens have been collected on the bark of apricot and peach trees in late summer in eastern Turkey.



Adult rosette weevil

In the field in Eurasia, the rosette weevil is known to develop only on yellow starthistle, bachelor's button/cornflower (*Centaurea cyanus*) and blessed thistle (*C. benedicta* [= *Cnicus benedictus*]). It has never been reported to be a pest of safflower, which is indigenous to the Mediterranean Region. No-choice and choice laboratory experiments and field garden experiments were conducted by USDA-ARS scientists and scientists in France, Italy and Turkey to evaluate the risk to nontarget plants. The results indicate no risk to any native North American plant species or to safflower. There is a low risk of attack on bachelor's button, blessed thistle and Malta starthistle (*C. melitensis*), which are all native to Eurasia. A petition was submitted to USDA-APHIS and was favorably reviewed by the Technical Advisory Group (TAG) in 2006. The USFWS concurred with the Biological Assessment (BA), and an Environmental Assessment was published in the Federal Register in 2009. APHIS signed a FONSI (finding of no significant impact) in August 2019. I received release permits for California in November and plan to make the first release in March 2020.



Root damage

We are currently multiplying insects in our colony and are developing mass-rearing methods, including breaking winter diapause early to produce an extra generation per year. In fall 2020, we plan to start training other groups how to rear the weevil, and we expect to have enough insects available for additional releases in spring 2021. For additional information, contact [link.smith@usda.gov](mailto:link.smith@usda.gov).

# WASHINGTON REPORT

January 3, 2020  
Lee Van Wychen

## **Weed Science Societies Comment on EPA's Interim Process for Evaluating Potential Synergistic Effects of Pesticides during the Registration Process**

Since 2015, EPA has used an interim process to evaluate the potential synergistic effects of 24 new active ingredient registrations due to patent office claims by registrants. None of these reviews have ultimately impacted an existing EPA ecological risk assessment. The results from the analysis of the first 24 active ingredients reflects that there is a low probability that claims asserting greater than additive (GTA) effects will impact ecological risk assessments for pesticide active ingredients. Therefore, the National and Regional Weed Science Societies support EPA's plans to evaluate the results of the interim process, and once a sufficient number of reviews are completed, to decide whether continuing the process has utility in evaluating ecological risk associated with product use. If the outcome of EPA's future evaluation demonstrates that the interim process does not have utility in evaluating ecological risk associated with product use, our societies agree that EPA and registrants should not exhaust additional time and resources in this endeavor and suspend evaluations. [The National and Regional Weed Science Society comments are available here.](#)

## **WSSA Comments on Paraquat**

The WSSA provided comments on the value and uniqueness of paraquat for weed management. We strongly support further education and awareness activities both on the label and through training. [Read the full comment on 'Registration review; Availability: Paraquat Dichloride Draft Human Health and Ecological Risk Assessments'.](#)

## **Congress Reaches FY 2020 Budget Deal**

After months of delay, Congress passed a much-anticipated deal to fund the government through the end of FY 2020, which runs through September 30, 2020. The \$1.4 trillion package of discretionary spending bills, which was divided up into two "minibuses", was finally delivered just before the holiday break after months of rigorous debate. The first minibus (H.R. 1865) included eight of the twelve appropriations bills, all covering domestic policy. The second minibus (H.R. 1158) was a four bill package focused on national security. The first minibus includes funding for the U.S. Department of Agriculture (USDA) and the Food and Drug Administration (FDA).

## **2015 WOTUS Rule Repealed**

On September 12, EPA Administrator Andrew Wheeler and Assistant Secretary of the Army for Civil Works R.D. James announced the repeal of the Obama administration's Clean Water Rule, better known as the Waters of the United States rule, or WOTUS. The 2015 rule has never fully taken effect because there have been multiple court challenges. The repeal formally restores the previous regulatory regime nationwide until the Trump administration releases its own rule to deal with the issue of conflicting Supreme Court rulings on WOTUS. In December 2018, EPA and the Army Corp proposed a new definition that would clearly define where federal jurisdiction begins and ends in accordance with the Clean Water Act and Supreme Court precedent. After a public comment period this spring, the proposed new WOTUS definitions are expected to be finalized this winter.

## **USDA-NIFA Appoints 6 National Science Liaisons**

The USDA National Institute of Food and Agriculture's (NIFA) program portfolio and contact with their stakeholders, partners, and collaborators in Washington DC will continue, uninterrupted with the creation of six National Science Liaisons (NSLs). These six NSL's have already been selected and will support NIFA's national research, education, and extension portfolio; advance NIFA programs; and serve as expert resources. They are:

**Mathieu (Mat) Nguouajio, Ph.D. – plant production and protection, organic farming**

Eric Norland, Ph.D. – natural resources and environment

Bradley K. Rein P.E. – sustainable agricultural systems, technology, economics and social sciences

Caroline E. Crocoll, Ph.D., CFCS – human sciences and 4H

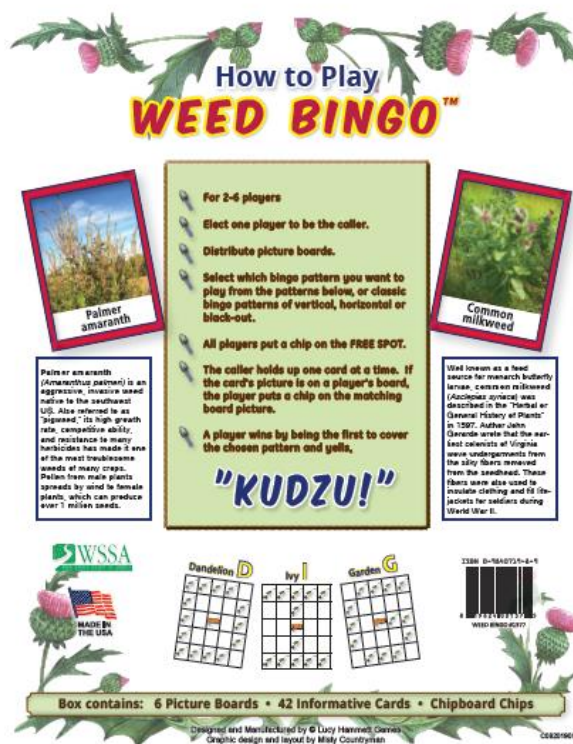
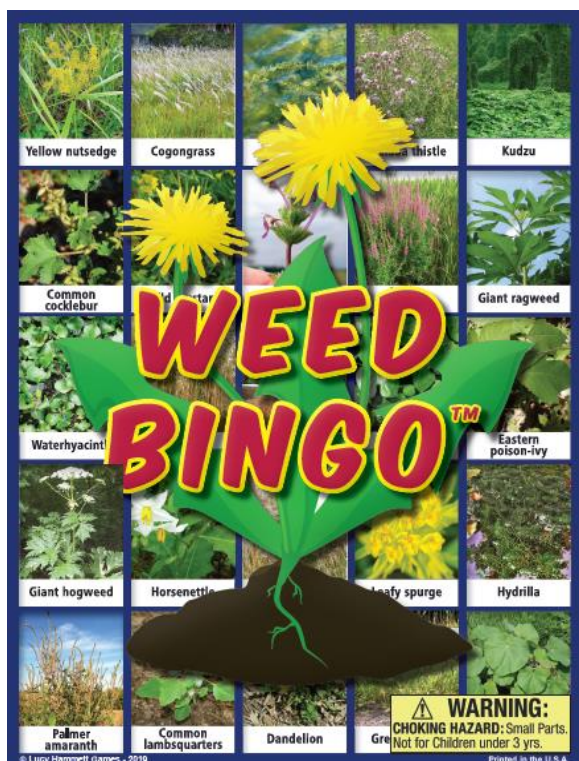
Mark Mirando, Ph.D. – animal health and production

Mervalin Morant, Ph.D. – food safety, nutrition and minority serving institutions

### **WEED BINGO Now Available for Purchase!**

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

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



WEED BINGO is produced by the Weed Science Society of America, with support from the Aquatic Plant Management Society, North Central Weed Science Society, Northeastern Weed Science Society, Southern Weed Science Society, and **Western Society of Weed Science**. Each game is \$14.95 + \$5 shipping and handling for domestic shipping.

To purchase a game, please go to: [WSWS Store](#)

Lee Van Wychen, Ph.D.

Executive Director of Science Policy

National and Regional Weed Science Societies



## Publications Available from the Western Society of Weed Science

(All prices include shipping and handling; bulk orders may be discounted, see below)

_____ Aquatic and Riparian Weeds of the West.....	\$45.00
_____ Weeds of California and Other Western States.....	\$85.00
_____ Weed Control in Natural Areas in the Western United States .....	\$40.00
_____ Interactive Encyclopedia of North American Weeds DVD.....	\$50.00
Total _____	

All publications can be ordered online at [www.wsweedscience.org](http://www.wsweedscience.org) (click on **WEED BOOKS**)

To order by mail and pay by check, send this completed form with payment to:

WSWS Business Manager, 12110 Pecos St., Ste 220, Westminster, CO 80234.

**Contact the Business Manager (Eric Gustafson) at (303) 327-8016 for bulk order prices.**

Shipping Information:

Name: \_\_\_\_\_

Address: \_\_\_\_\_ City: \_\_\_\_\_

State: \_\_\_\_\_ Zip Code: \_\_\_\_\_ Telephone: \_\_\_\_\_

e-mail: \_\_\_\_\_

### 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