



Western Society of Weed Science Newsletter

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Summer 2013

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Report from the President by Roger Gast

The WSWS Board of Director's (BoD) held our summer meeting on August 5-6th at our next venue, Hotel Elegante in Colorado Springs. The hotel is undergoing many renovations and they are targeted to be completed by March in time for our meeting. I think you will be impressed with both the room and meeting facilities. Many thanks to Tim D'Amato, local arrangements chair, for doing much of the leg work and being our liaison with the hotel staff. And a big thanks to Phil Banks for making all the arrangements for our summer

meeting!

The BoD heard reports from most of its officers committees at the summer meeting. And it took action on several proposals to improve how we do business. They included moving CEU activities under the Education committee, and having supported symposiums act as "ad hoc" committees working under the direction of the Education and Regulatory Section Chair. We also discussed various ways of re-invigorating the Public Relations, Herbicide Resistance and Legislative committees. The BoD agreed on an ethics statement for your consideration (vote) during the business meeting in Colorado Springs; if ratified then it would be added to the Operating Guide. We'll keep you informed of all these initiatives along the way.

I would like to draw your attention to the results of a member survey that was conducted in February, 2013. The results should be posted to the WSWS website soon, if not already. It provides a good overview of WSWS member experience, demographics and other affiliations, and member suggestions for our future direction. Thanks to Bob Stougaard and Kai Umeda for generating and summarizing the results.

Speaking of our website, I'm excited to announce that we will have a new website starting on October 1st. We reluctantly accepted Tony White's resignation as webmaster in June, so that he could more focus on his day job. However this provided an opportunity to solicit a bid from David Krueger "Apex Web Studio" to be our new webmaster. The new website will include a new look and an upgrade of functionality on many levels. The design of the new website is in progress so if there is an improved functionality component that you have in mind, please send Phil Banks or I a note. One idea I have is to have an electronic committee sign-up a couple months in advance of the meeting. We also generated many ideas of how the Public Relations committee could enhance and complement the website – now we need some good volunteers to serve on this committee. Please don't hesitate to contact me with any ideas and if you would like to serve.

Finally, I am happy to let you know that we have decided on a site for the 2016 meeting. With the direction and recommendation of the site selection committee and Phil Banks the meeting will be held in Albuquerque, NM at the Hyatt Regency Albuquerque. It looks to be a great venue right in the center of downtown.

I hope you have a great rest of your summer.

Contact Us

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Legislative

Call for Papers and Posters for the 67th Annual Meeting of the WSWS - by Drew Lyon, Program Chair

The 2014 WSWS annual meeting will be held in Colorado Springs, CO, home of the US Air Force Academy and where agriculture and urban sprawl meet the Rocky Mountains. There is sure to be something of interest for everyone at the 67th annual meeting of the WSWS.

The US Air Force Academy has major impacts on the city of Colorado Springs and the surrounding area. As part of the General Session, three speakers will talk about their integrated, multi-faceted efforts to manage weeds across a wide range of land uses at the Academy. The speakers are: Dr. Brian Mihlbachler, US Fish and Wildlife Service, Colorado Fish and Wildlife Conservation Officer, Air Force Academy Natural Resources Manager; Renee Rondeau, Conservation Planning Team Leader/Ecologist, Colorado Natural Heritage Program, Colorado State University; and Dr. Jerry Michels, Entomologist, Texas A&M Agrilife Extension. You won't want to miss this year's General Session on Tuesday morning!

As you dream of catching air on your favorite black diamond run, or in my case, just making it to the bottom of the bunny slope without providing award winning footage for America's Funniest Home Videos, please also consider submitting a paper and/or poster to share the results of your recent research or education efforts.

The WSWS annual meeting is organized into the following five projects: Agronomic Crops, Horticultural Crops, Weeds of Range and Natural Areas, Basic Biology and Ecology, and Teaching and Technology Transfer. Oral presentations in these project sessions are limited to 15 minutes; a suggested 12- to 13-minute presentation followed by 2 to 3 minutes of questions and answers. Poster authors will have an opportunity to personally expand upon their research during designated poster sessions on Tuesday and Wednesday mornings. Graduate and undergraduate students are strongly encouraged to submit presentations to the student paper and/or poster contests. I hope everyone will consider submitting an oral or poster presentation to ensure that we have a well-balanced program at the upcoming meeting.

As we've done in recent years, the WSWS will share the WSSA electronic title and abstract submission procedures. The title and abstract submission process will begin on October 1, 2013 by entering the WSWS website to register for the meeting. The deadline for submitting titles will be December 1, 2013. Abstracts will need to be uploaded by February 1, 2014. The "cut and paste" method of loading your abstract is a simple procedure and enables the program committee and editors to finalize the conference agenda and its proceedings quickly and efficiently. All title and abstract submissions can be done through our website at www.wsweedsience.org.

We continue to ask WSWS members to consider submitting symposium proposals for future meetings in Portland in 2015 and Albuquerque in 2016. Members are encouraged to creatively design and plan symposia that are currently or regionally relevant for future annual meetings. For example, the symposium planned for the 2014 annual meeting in Colorado Springs is entitled "Biology and Management of Invasive Toadflax in the Western U.S." Invasive toadflax populations are widespread on public lands managed for timber, livestock grazing, recreation and wildlife habitat. Toadflax is especially problematic after fire, which has been all too common in Colorado and the western US in recent years. Refer to the spring 2013 issue of the WSWS Newsletter for instructions to submit symposium proposals.

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Student Liaison Report by Craig Beil

The summer board meeting in Colorado Springs was quite enjoyable, with scenic views of Pikes Peak and Garden of the Gods. Your comments and suggestions to the post meeting survey following the San Diego meeting were well received by the board and will help with planning the student events for the meeting in March.

The Student Silent Auction has been extremely successful in raising money for the student travel scholarships awarded each year. Last year, we fully funded two of the three scholarships, and we hope this year's auction will be just as successful. We are currently looking for items or services to be on display for the 2014 meeting in Colorado Springs. If you have a favorite company, or a company whose equipment you use frequently, please pass their contact information on to us or contact me for information on soliciting companies for silent auction items. We are interested in items for both this year's meeting in Colorado Springs and next year's meeting in Portland.

I would like to encourage students that are interested in being more involved in the society to join the public relations committee. This committee will be working to publicize the annual meeting, the symposium at the annual meeting, and the book Weeds of the West. The public relations committee is very receptive to new ideas.

The new WSWs website should be up and running soon. We are looking for pictures to use on the website. If you have a picture that exemplifies weed science, please send your pictures to Phil Banks (wsws@marathonag.com).

Please look to the WSWs Student Section page on Facebook for news leading up to the annual meeting: [<https://www.facebook.com/WSWSStudentSection>, or search for "Western Society of Weed Science."] We will continue to use this webpage as a forum for information that is pertinent to student members, so please 'Like' us to receive updates with meeting information and deadlines as we approach the annual meeting. Give us feedback on the page so we can develop it into a useful and informative resource for all WSWs student members. Also, don't forget the Student Site on the WSWs website: http://www.wsweedscience.org/Students/Student_Portal.asp. Everything you need to know about the scholarship program and the upcoming meeting will be posted here, too.

As always contact Marcelo (mlmoretti@ucdavis.edu) or myself (ctb081@rams.colostate.edu) with any questions.

Craig Beil, Student Section Chair

Marcelo Moretti, Student Section Chair Elect

Sustaining Members Needed

The number of Sustaining Members for the WSWs has shrunk over the years as the Ag Chemical industry has consolidated and the number of equipment manufacturers who have supported the society has decreased. Please take a moment to look over the list of Sustaining Members and if your company or organization is not a member please consider becoming one. Membership is not limited to Ag Chemical and other support industries but also to any organization that is important to the work of the WSWs.

If you know of a company or organization that may be a fit as a Sustaining Member we would request that you forward contact information to any member of the committee and we will make contact with them. We thank those who support the society as Sustaining Members and hope that we can add to this membership.

Best regards,

Dennis Tonks (dtonks@iskbc.com), Pat Clay (Pat.Clay@valent.com), and Greg Dahl (GKDahl@landolakes.com)

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Publications

WSWS ONLINE EDUCATION
<http://www.wsweedscience.org/contacts/Events/Education/factsheets.asp>

WSWS Journals Website Online
www.WSSAJournals.org

Notes from the Business Office by Phil Banks

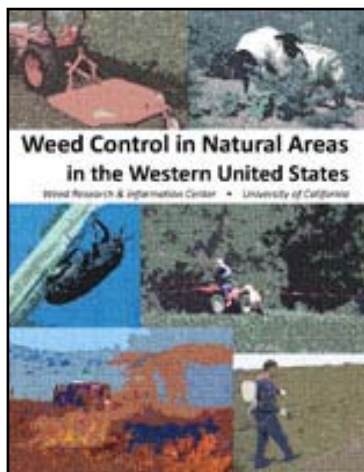
As some of you may be aware, WSWS Webmaster Tony White is stepping down due to increased responsibilities with his job. Tony has done a great job with the website and WSWS owes him a debt of gratitude. The WSWS Board of Directors has contracted with David Krueger, Apex WebStudio, to take over the website responsibilities and he is currently constructing a new website that should come online prior to October 1, 2013 (this is when we will open title submission and meeting registration for the 2014 meeting). The current website will be up and running until then. As we make this transition, there may be a few glitches so please be patient and let me know if you run into any troubles. If you did not attend the meeting in San Diego and still have not renewed your membership for 2013, you can do so by going to the website and logging in to your account. Scroll to the bottom of your contact page and you will see where you can renew. If you want to pay by check, a membership renewal form is included in this Newsletter.

Please help support WSWS activities by purchasing some of our publications. Besides our best selling "Weeds of the West" book (we have sold over 160,000), we have a variety of other weed identification resources recently posted the publication "Weed Control in Natural Areas in the Western United States" for sale. These resources can be used for teaching or self education. You can check out all of the publications by going to our website (www.wsweedscience.org) and clicking on "Online Store" located on the left side of the page. When you are giving public presentations about weed identification please let your audience know about these resources. There is an order form for our publications in this Newsletter. Contact me for discounts on bulk orders.

If you need to contact the office, please give us a call at 575-527-1888 or e-mail at wsws@marathonag.com.

Phil Banks, WSWS Business Manager/Treasurer

Weed Control in Natural Areas in the Western United States



This book contains control options, both non-chemical and chemical, in full write-ups for nearly 242 species, with non-chemical and chemical options in a susceptibility table for a little under 100 additional species. Information is also provided on the variety of control techniques and equipment used in natural areas, as well as safety and environmental considerations, herbicide characteristics, rainfall periods and grazing and haying restrictions for terrestrial herbicides, a list of species with biological control agents either available or under development, and helpful conversion tables.

You can purchase this book from WSWS by following this link:

<http://www.wsweedscience.org/Products/proddetail.asp?prod=Book2>

Calendar of Events

Invasive Species

– A Grand View
Conference

October 28-31, 2013

Jackson, Wyoming

www.naisma.org

North Central Weed Science Society

December 9-12, 2013

Columbus, Ohio

www.ncwss.org

66th California Weed Science Society Conference

January 22-24, 2014

Monterey, CA

www.cwss.org

Southern Weed Science Society

January 27-29, 2014

Birmingham, Alabama

www.swss.ws

Weed Science Society of America Annual Meeting

February 3-6, 2014

Vancouver, British Columbia

www.wssa.net

Western Society of Weed Science Annual Meeting

March 10-13, 2014

Colorado Springs, Colorado

www.wsweedscience.org



Boots On The Ground

More than 70 workers from a dozen agencies and three states gathered this week to protect the Greater Yellowstone Area from invasive species

CRANDALL, Wyo -- Step by step, mile after mile, they marched. For the sake of protecting wildlife habitat, more than 70 weed sprayers forged rivers, climbed steep embankments above and below the highway, and hiked along the power line routes, snowmobile trails and old logging roads of northern Wyoming's majestic Beartooth Mountains. From Aug. 6-8, volunteer workers from a dozen federal, county and local agencies from three states gathered in the Beartooths for the the Second Annual Greater Yellowstone Coordinating Committee's Terrestrial Invasive Species Work Day, a collaborative multi-agency effort to protect the Greater Yellowstone Area from the threat of invasive species. "It went amazingly well. This event surpassed all of our expectations," said Josh Shorb, supervisor of the Park County Weed and Pest Control District, the agency that organized and hosted this year's event. While workers found and treated the usual suspects of known populations of noxious weeds that tend to pop up here and there in the Beartooth Mountains, they also found a few surprises ... and with a few waves of their backpack sprayer wands wiped out the noxious invaders.

Within the work area, the project yielded: the discovery of the first roadside infestation of common tansy -- a single plant found alongside the Beartooth Highway; the first detection of spotted knapweed along the Upper Clark's Fork of the Yellowstone River -- a small group of plants along the stream banks; and the first known occurrence of tall buttercup in the Cooke City area of Montana.

The findings showed what can be accomplished by applying the principles of Early Detection Rapid Response, Shorb said. "It's so important to find infestations early like that so we can stop them. Because of those early detections, we have eradicated those populations of invasive plants," he said.

Crews also GPS-mapped and chemically treated a previously undocumented infestation of oxeye daisy they found snaking along the snowmobile trails and old logging roads of the Pilot Creek area. In future years, that discovery will require additional treatments and monitoring. Crews also identified and GPS-mapped Canada thistle infestations that will be treated with biocontrols (insect releases). "We gathered so much good information from this project," said Jacob Jarrett, assistant supervisor of the Park County Weed and Pest Control District. "It's going to change how we work-plan up here."

An important aspect of the project was public outreach -- educating mountain residents on the threat of invasive species such as oxeye daisy, which can take over a landscape. It's hard to convince everyone of that, especially since some people think they're pretty flowers, said Mickey Pierce of the National Park Service's Northern Rocky Mountain Exotic Pest Management Team, which worked in the Silver Gate area.

By the end of the massive work project, which ran all day Aug. 7 and some of the following morning, the dozens of volunteer



weed sprayers had covered all planned work areas plus several miles more: an estimated total of nearly 10 miles of river banks, 10 miles of power line routes and about 5 miles of forest trails and roads.

I'd like to sincerely thank all the volunteers and agencies who participated in this project," said Shorb, Park County Weed and Pest Supervisor. "It was an amazing effort from everybody."



Agencies that took part in the collaborative project included: Park County Weed and Pest Control District, Teton County Weed and Pest Control District, Bonneville County (Ida.) Weed District, Cooke City Area Council (Mont.), Grand Teton National Park, Yellowstone National Park, National Elk Refuge, National Park Service-Northern Rockies Exotic Plant Management Team, Bridger-Teton National Forest, Madison Ranger District of Beaverhead-Deerlodge National Forest (Mont.), Gallatin National Forest (Mont.) and Shoshone National Forest.

Funding was provided by a grant from the Greater Yellowstone Coordinating Committee with additional funds from the Park County Weed and Pest Control District and Shoshone National Forest.

The North American Invasive Species Management Association & Wyoming Weed and Pest Council
Invite You To Join Us!

October 28-31, 2013 --- Jackson, WY

INVASIVE SPECIES – A GRAND VIEW

Conference Agenda Highlights

General Session: "From Invasive Plants to Invasive Species"

Featuring:

- Healthy Habitats Coalition
- Center for Invasive Species Management
- Invasive Species Council of Metro Vancouver
- Bureau of Land Management – Inside & Out
- Understanding the Generational Gap in the Workplace

Breakout Sessions:

- Range & Pasture** – Smart Technology, Prevention & Invasive Plants; Poisonous Plants
- Biocontrol** – Agents on the Horizon, Misconceptions, Successes, Panel Discussion; Special Guests from CABI
- Early Detection Rapid Response** – eDNA an Up & Coming Technology, Eradicable Weed Program
- State Updates** – ND, SD, MT, WY (OR, CO, WA, ID, KS, NV pending)
- Pests** – Mosquito Abatement, WY Cooperative Ag Pest Survey, CDC Updates
- Invasive Grasses** – Medusahead, Ventenata Grass, Buffelgrass, Western Invasive Grasses & Discussion
- Preventing Death By Lecture Workshop**

Tour:

National Elk Refuge: Cheatgrass Project & Feeding Operation

The mission of the USFWS is to work with others to conserve, protect, and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people. The National Elk Refuge is part of the National Wildlife Refuge System, the nation's premier system of public lands and waters set aside to conserve America's fish, wildlife and plants.

Grand Teton National Park: Kelly Hayfields Restoration Project

Grand Teton National Park protects stunning mountain scenery and a diverse array of wildlife. It is in many ways emblematic of the entire National Park System. Located in the heart of the Greater Yellowstone Ecosystem, near the community of Jackson, Wyoming, this park is an icon for a myriad of nationally significant conservation issues. This project includes removing old agricultural hay fields and converting them back into sagebrush steppe for the benefit of wildlife.

For Agenda Details, Registration & Room Information Please Visit WWW.NAISMA.ORG

REQUEST FOR WSWF FELLOW AND HONORARY MEMBER NOMINATIONS

BY

Dr. Rick Boydston, Committee Chair

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

WSWF FELLOW

WSWF 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 WSWF guidelines approved by the Board of Directors (see below).
- c. Information from the resume will be used by the nominator in writing the letter of nomination.
- d. The nominator also is 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 WSWF – Please address the following points in the resume:

1. **Officer:** President; Vice-President; Secretary, Research Section Chair; Education & Regulatory Section Chair; Editor; Other.
2. **Committees:** Standing; Special; Ad Hoc.
3. **Presentations and Publications:** WSWF – Papers, Proceedings, Research Progress
4. **Service to other Weed Science Societies:** Weed Science Society of America; State Organizations.
5. **Academic Weed Science Endeavors:** Teacher; Graduate Students; Refereed Publications; Extension Publications, Books; Popular Publications; Academic Weed Science Pursuits; Other.
6. **Industry Weed Science Endeavors:** Sales and Marketing; Research and Development; Regional Manager; Product Manager.
7. **Other Meritorious Weed Science Service**

WSWF HONORARY MEMBER

WSWF 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 must contact the person to be nominated and request them to prepare a vita.
- 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 WSWF have been served by this non-member.
- 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, 2013
TO:

Electronic submission preferred.

Dr. Rick Boydston

WSU Prosser IAREC

24106 N Bunn Rd

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(509) 786-9267 Rick.Boydston@ARS.USDA.GOV

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 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 **October 1, 2013**.

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 **October 1, 2013**:

Richard N. Arnold
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505-960-7757

CALL FOR 2014 RESEARCH PROGRESS REPORTS

The WSWS Research Progress Report is published to make significant new weed science research in the West available with the least possible delay. Early dissemination of weed research data is an important aid in formulating recommendations and in planning research. We encourage members of WSWS to submit pertinent new research data for publication in the Research Progress Report.

The Research Progress Report is produced on a very tight schedule. In order to expedite publication, all reports must be submitted in a "camera ready" condition. The report must be prepared according to the specific directions outlined below. Reports that do not strictly adhere to the requirements will be returned to the author. The report will be rejected if there is not time to make the necessary changes.

Each contributor must:

1. Follow instructions carefully and completely.
2. Obtain two additional reviews of each report and have each reviewer *print their name* at the bottom of the index outline. The two reviewers can be anyone other than the senior author of the report. The two reviews are a requirement for publication.
3. Send the report(s) via e-mail with an index outline for each report. Remember, the report will be printed as received.
4. Adhere strictly to the submission **deadline of January 6, 2014**. **Send an electronic copy** as a Microsoft Word file (doc or xdoc) or as an Acrobat file (pdf) attached via e-mail to trauch@uidaho.edu. **After submission, a reply will be sent upon receipt of a report. No reply means no report was received.**

Questions? Please contact: Traci Rauch
208-885-9709
trauch@uidaho.edu

GUIDELINES FOR RESEARCH PROGRESS REPORTS

WSWS will not retype or make typographical corrections on papers submitted for the WSWS Research Progress Report. It is the responsibility of the author to submit each report in a ready for publication condition following these guidelines:

FORMAT Paper must be white 8.5 by 11 inch. Margins must be one inch on all sides. Please use **full justification** (this means both right and left margins are aligned). Type all text using **10 pt (Times New Roman)** font. All text should be single spaced. Either English or metric units are acceptable. However, do not mix English and metric units (Some exceptions may apply – e.g., CEC is expressed best in metric units as meq/100g). Do not type page numbers. Reports will be printed as received.

TITLE Begin title at the left margin. Capitalize only the first letter of the first word. Underline the entire title. End the title with a period.

AUTHORS Begin the authors name (first, middle initial, last) following the title of the paper. End list of authors with a period. Briefly list the author's affiliation and mailing address in parentheses - e.g., (Weed Research Laboratory, Colorado State University, Fort Collins, CO 80523)

BODY OF TEXT The report should clearly present the objectives of the research, methods, and results. Double space or indent between paragraphs.

Abbreviations Use abbreviations as shown in the Scientific Style and Format: The *CBE Manual for Authors, Editors, and Publishers* and as commonly used in *Weed Science* or *Weed Technology*. Abbreviations for weeds can be used in the tables. **Do not abbreviate the word inch.** Do not place a period after the abbreviation unless its omission could cause confusion. Abbreviations not shown in the *CBE Manual (including Bayer codes)* should be introduced in parentheses immediately after their first use in the text or footnoted if used in a table.

Numbers Use Arabic numerals for numbers with two or more digits and for measurements of time, weight, and degrees, except when the number is the first word of a sentence. Spell out numbers less than 10 or when they are the first word of a sentence, except when they constitute a series in which one number has two or more digits. Write 10 by 20 rather than 10 x 20 and 1 to 5 rather than 1-5 except in tables where space is limited. Use decimals instead of fractions (0.5, not ½). Place zero at left of decimal (0.5, not .5).

Plant names Weeds can be appropriately identified in the text by using the WSSA-accepted common names [*Weed Science*, 32 (Supplement 2): 1984 with *Weed Science* 36:850-851, 1988; Composite List of Weeds, available from WSSA; or WSSA.net].

Chemical names Herbicides can be properly identified by the WSSA-accepted common name (appears in the back of *Weed Science* Vol. 54 issue No. 6). Other herbicides may be identified by giving the code number followed by the chemical name in parentheses. Do not use trade names in the title of the paper. If the trade name of a chemical (herbicide or adjuvant) appears in the paper, the author must supply a suitable justification statement for using the trade name; this statement is to be given on the index outline.

Herbicide rates Express rates as active ingredient (ai) or acid equivalent (ae) (whichever applies), not as formulated material. When necessary, it is appropriate to mention a specific formulation, such as the specific ester or salt utilized in the research.

TABLES AND FIGURES Use **10 pt (Times New Roman)** font. If space is limiting, font size may be reduced to as low as 8 pt. Single-space all tables. **Table width should be the size of the paper with margins one inch on all sides.** Tables may be landscape or portrait. Type the word “Table” with an uppercase “T” at the top of the table and follow it with a period. Do not use a table number unless the report has more than one table. Please note the following in the example table at the end of the guidelines: a) the unit designation for each column is below the line; b) only the first letter in each column heading and treatment is capitalized; c) a zero precedes each decimal (0.5, not .5); d) herbicide common names are written out when possible and necessary herbicide abbreviations are spelled out in a footnote; and e) use + to indicate herbicide tank mixtures and / to indicate herbicide premixtures. Use superscript numbers (^{1,2,3}, etc.) to indicate footnotes for tables. Begin the word “Figure”, **below the Figure**, with a capital “F” and follow it with a period. Do not number the figure unless the paper has more than one figure. Figures that will reproduce well are acceptable.

INDEX OUTLINE To enhance the publishing procedure, an index outline for each paper must be prepared by the author and submitted to the editors. The outline will include: Title of paper, author(s), Project, list of crops, list of weeds, list of herbicides, keywords, and reviewers’ names. Choose the appropriate Project for your report. Projects are: 1. Range and Forest; 2. Horticultural Crops; 3. Agronomic Crops; 4. Teaching and Technology Transfer; 5. Wetlands and Wildlands; and 6. Basic Sciences. Authors must identify **weeds and crops by common and scientific binomial name and authority on the index outline.** Chemicals (herbicide and adjuvant) must be listed by common name **and trade name** or code number. Papers submitted without **a current** index outline will be returned. Attach the completed electronic index outline to the e-mail.

REJECTED REPORTS Any report submitted that does not conform to the guidelines will not be published. Editors may, at their discretion, work with the author to correct the report if time permits.

INDEX OUTLINE FOR WSWs RESEARCH PROGRESS REPORTS

Complete one for each report.

1. TITLE:

2. AUTHOR'S NAMES:

3. CORRESPONDING AUTHOR:

Email
Phone number
Address

4. PROJECT (see choices under **INDEX OUTLINE**):

5. CROP(S) INVESTIGATED (List alphabetically by common name. **Include scientific binomial name plus authority**):

6. WEED(S) INVESTIGATED [List alphabetically by WSSA-approved common name. **Include scientific binomial name plus authority**. Many weeds can be found in COMPOSITE LIST OF WEEDS, Weed Science 32 (Supplement 2): Revised 1989 or at WSSA.net]:

7. HERBICIDES AND **ADJUVANTS** INVESTIGATED (List alphabetically by common name or code number AND include **trade name**):

8. KEYWORDS (examples biocontrol, direct-seed, herbicide resistant). Do not include words listed above in crop, weed, herbicide or adjuvant:

REVIEWS BY TWO PERSONS IN ADDITION TO SENIOR AUTHOR: I have reviewed the attached report and find the content to be appropriate and presented in the proper style for publications in the WSWs Research Progress Report.

Name _____ Name _____

Title _____ Title _____

Affiliation _____ Affiliation _____

EXAMPLE: RESEARCH PROGRESS REPORT

Weed control in imidazolinone-resistant winter wheat with imazamox. Traci A. Rauch and Donald C. Thill. (Plant Science Division, University of Idaho, Moscow, ID 83844-2339) A study was established in 'Fidel' imidazolinone-resistant winter wheat to examine weed control in 2001 and herbicide soil persistence in 2002 with imazamox. Wheat was seeded on October 3, 2000. Plots were 16 by 32 ft arranged in a randomized complete block design with four replications. All herbicide treatments were applied using a CO₂ pressurized backpack sprayer calibrated to deliver 10 gpa at 30 psi and 3 mph (Table 1). Wheat injury and weed control were evaluated visually on June 7, 2001. Wheat seed was harvested with a small plot combine on August 7, 2001. In spring 2002, each plot will be planted to spring barley and yellow mustard to evaluate soil persistence of imazamox.

Table 1. Application and soil data.

		Moscow, Idaho	
Location			
Application date	November 2, 2000		April 24, 2001
Wheat growth stage	1 leaf		3 to 5 tiller
Volunteer barley growth stage	2 leaf		2 to 3 tiller
Air temperature (F)	50		50
Relative humidity (%)	73		86
Wind (mph, direction)	2, E		4, E
Cloud cover (%)	30		10
Soil temperature at 2 in (F)	44		40
pH		4.7	
OM (%)		2.8	
Texture		loam	

No treatment visibly injured wheat on June 7, 2001 (data not shown). All treatments controlled volunteer barley 98% or better (Table 2). Wheat grain yield (89 to 99 bu/A) was better with all treatments compared to the untreated check. Test weight (56 to 60 lb/bu) did not differ among treatments or from the untreated check.

Table 2. Weed control, wheat yield and test weight with imazamox near Moscow, Idaho in 2001.

Treatment ¹	Rate lb ai/A	Application timing	Volunteer barley control %	Wheat	
				Yield bu/A	Test weight lb/bu
Imazamox	0.04	fall	99	96	60
Imazamox	0.08	fall	98	95	60
Imazamox	0.04	spring	99	99	59
Imazamox	0.08	spring	99	99	56
Imazamox + MCPA amine	0.04 + 0.25 ²	spring	99	95	59
Imazamox + thifensulfuron/tribenuron	0.04 0.016	spring	98	97	59
Untreated check			--	89	59
LSD (0.05)			NS	5	NS
Density (plants/ft ²)			1		

¹All treatments were applied with 90% nonionic surfactant (R-11) at 0.25 % v/v and 32% urea ammonium nitrate (URAN) at 1qt/A.

²MCPA amine rate is expressed as lb ae/A.

INDEX OUTLINE FOR WSWs RESEARCH PROGRESS REPORTS (EXAMPLE)

Complete one for each report.

1. TITLE: Weed control in imidazolinone-resistant winter wheat with imazamox

2. AUTHOR'S NAMES: Traci Rauch and Donn Thill

3. CORRESPONDING AUTHOR:

Email trauch@uidaho.edu
Phone number (208) 885-9709
Address University of Idaho
 PSES Dept.
 PO Box 442339
 Moscow, ID 28244-2339

4. PROJECT (see choices under **INDEX OUTLINE**): 3. Agronomic Crops

5. CROP(S) INVESTIGATED (List alphabetically by common name. **Include scientific binomial name plus authority**):

wheat, winter (*Triticum aestivum* L.)

6. WEED(S) INVESTIGATED [List alphabetically by WSSA-approved common name. **Include scientific binomial name plus authority**. Many weeds can be found in COMPOSITE LIST OF WEEDS, Weed Science 32 (Supplement 2): Revised 1989 or at WSSA.net]:

barley, volunteer (*Hordeum vulgare* L.)

7. HERBICIDES AND **ADJUVANTS** INVESTIGATED (List alphabetically by common name or code number AND include **trade name**):

imazamox (Beyond)	thifensulfuron (Harmony Extra XP)
MCPA (MCPA 4 Amine)	tribenuron (Harmony Extra XP)
non-ionic surfactant (R-11)	urea ammonium nitrate (URAN)

8. KEYWORDS (examples biocontrol, direct-seed, herbicide resistant). Do not include words listed above in crop, weed, herbicide or adjuvant:

persistence
plantback

REVIEWS BY TWO PERSONS IN ADDITION TO SENIOR AUTHOR: I have reviewed the attached report and find the content to be appropriate and presented in the proper style for publications in the WSWs Research Progress Report.

Name _____

Name _____

Title _____

Title _____

Affiliation _____

Affiliation _____

INVASIVE PLANTS

GROW YOUR KNOWLEDGE OF



STUDY INVASIVE PLANTS ONLINE

A new online course, Invasive Plants: Impacts on Ecosystems, discusses these plants and their impact locally as well as globally.

Lectures, discussions, and practical applications — all online — will be part of this 3-credit course.

WHAT YOU WILL LEARN

As a professional or interested person, you will develop an understanding of the importance of invasive plants and learn how species that are fairly benign in one ecosystem are quite significant in others. You also will learn that invasive plants are able to establish in regions outside their native range.

COURSE TOPICS

- Definition of invasive plants
- Where invasive plants occur
- How they impact the most pristine to the most degraded ecosystems

In addition, the course will explore questions, such as:

- How are invasive plants in arid climates affecting hydrological cycles of the region?
- What changes do invasive plants cause belowground that result in altered nutrient cycles and soil microbial communities?
- What are the legacies of invasive plants that remain, even after they have been removed from an ecosystem?



For more information or to sign up for the online course:
 Email: steve.young@unl.edu
 Phone: 308-696-6712
 Website: <http://ipscourse.unl.edu/iwep>

2013 Membership Renewal Form for the Western Society of Weed Science

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

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

Last name	First name	Affiliation		
Mailing address	City	State	Zip code	
Phone # w/area code	e-mail address			
Classification: Student _____ University _____ Federal Agency _____ State Agency _____				
Private Industry (manufacturing and sales) _____ Private Industry (consulting) _____				
Unemployed _____ Retired _____ other (specify) _____				

Send to: **WSWS/Phil Banks**
205 W. Boutz, Bldg 4, Ste 5
Las Cruces, NM 88005

Principal Research Fellow; Weed Science and Management; Centre for Plant Science, Toowoomba, Queensland

Full-time, fixed term until Oct 2015 (with potential extension to 5-year term). The primary purpose of the position is to engage, as a Principal Research Fellow, in Research for Industry outcomes, Postgraduate teaching and supervision, and further development of the Institute's research programs, as well as performing administrative and other activities associated with the Institute and its *Centres*.

This position will lead an applied Weed Science and Management Program within the Centre for Plant Science focussed on field crop weed issues in the northern grains region. Qualifications include: PhD in the area of *Plant/Agricultural Science*; Demonstrated expert knowledge in the area of weed science and management; An ability to establish effective relationships and to represent and promote weed science and management at a university and wider community level, including industry, government and professional bodies; Track record of supervision of Honours and Research Higher Degree students to successful completion; Strong national and international industry liaisons and professional contacts.

Interested persons should contact Dr. Graeme Hammer; Professor in Crop Science & Director, Centre for Plant Science, Queensland Alliance for Agriculture and Food Innovation, Queensland Bioscience Precinct, The University of Queensland, Brisbane, Qld 4072, Australia. Tel: +61 7 3346 9463; Email: g.hammer@uq.edu.au.

WASHINGTON REPORT

August 21, 2013

Lee Van Wychen

Another Farm Bill Extension Likely

After passing a "Farm Bill only, Farm Bill", H.R. 2642 in July, the House is putting together a package of \$40 billion in cuts to the Nutrition Title, which is dominated by the Supplemental Nutrition Assistance Program (SNAP). Those cuts are double the level of cuts passed by the House Agriculture Committee and 10 times the level of cuts approved by the Senate. In addition to the cuts, the House will likely include a variety of wide reaching policy changes, including mandatory drug testing, a prohibition on participation by former convicts, and an incentive to states to adopt workfare requirements for SNAP recipients.

This stand-alone nutrition bill is expected to be brought to the floor of the House sometime in September. The only way this bill would pass the House is by a party line vote from Republicans. The House would then appoint conferees for a Farm Bill conference with the Senate. Before the August Congressional recess, the Senate had already appointed 11 conferees: Democrat's, Stabenow (MI), Leahy (VT), Harkin (IA), Brown (OH), Klobuchar (MN), and Bennet (CO), and Republican's Cochran (MS), Roberts (KS), Chambliss (GA), Boozman (AR), and Hoeven (ND). Given what the Senate passed and what the House has and will pass, I do not see a plausible scenario where the conference committee could draft a compromise piece of legislation that could be passed by both the House and Senate and signed into law.

The current extension of the 2008 farm bill expires Sept. 30, but farmers would not start to feel the effects until December, giving Congress time to either produce a new farm bill or extend the 2008 law. SNAP, which is permanently appropriated under separate legislation, could continue without a farm bill. The federally subsidized crop insurance program also would continue without a farm bill or extension.

EPA Approves Arundo and Napiergrass for Renewable Fuel Standard

On June 28, EPA approved a supplementary final rule which would allow for biofuels made from two known invasive weeds, giant reed (*Arundo donax*) and Napiergrass (*Pennisetum purpureum*), to qualify for credits under the Federal Renewable Fuels Standard. EPA had originally withheld these two species from a final rule approved in March due to objections raised by the National and Regional Weed Science Societies and many other invasive species, conservation, and wildlife groups. Both these species are known invaders and the March final rule that was approved by EPA lacked risk mitigation measures to prevent these species from spreading.

In the supplementary final rule released at the end of June, EPA adopted additional registration, recordkeeping, and reporting requirements based on the Invasive Species Advisory Committee's (ISAC) recommendations in their 2009

whitepaper titled “**Biofuels: Cultivating Energy, not Invasive Species**”. For example, EPA is requiring that renewable fuel producers demonstrate that the growth of giant reed or Napiergrass will not pose a significant likelihood of spreading beyond the planting area or that such a risk will be minimized through an EPA approved Risk Mitigation Plan (RMP). The RMP will include plans for early detection and rapid response to potential spread, best management practices as modeled by existing state and federal invasive species management programs, continuous monitoring and reporting of site conditions, a plan for site closure and post-closure monitoring, and identification of a third party auditor who will evaluate the performance of the RMP on an ongoing annual basis.

The EPA supplementary final rule from June can be found at: <http://www.gpo.gov/fdsys/pkg/FR-2013-07-11/pdf/2013-16488.pdf>

McCarthy Finally Confirmed by Senate to Lead EPA



The Senate confirmed Gina McCarthy to lead the EPA on July 18, ending a four-month battle with Senate Republicans. McCarthy was approved 59-40, with six Republicans joining all but one Democrat, Joe Manchin of West Virginia, in supporting her. Manchin said the EPA has engaged in an "over-regulatory rampage" against the coal industry, which is a pillar of West Virginia's economy. McCarthy served as EPA's assistant administrator for air and radiation since 2009 and was nominated to take over as head of EPA for the departing Lisa Jackson. The delay wasn't so much a disapproval with McCarthy, who has a good reputation for working with both sides of the aisle, but was more of protest against the Obama administration plans for first-time limits on carbon dioxide emissions from both new and existing fossil fuel-fired power plants, as well as

anticipated regulations related to ozone air quality standards, guidance related to hydraulic fracturing, and more stringent standards limiting vehicle emissions and the sulfur content of gasoline, among other rules.

Plant Science Summit Issues Decadal Vision Report

On July 25 the Plant Science Research Summit released *Unleashing a Decade of Innovation in Plant Science: A Vision for 2015-2025* (PDF), a call to action for the U.S. to address research priorities in plant science that could address major challenges including health, energy, food, and environmental sustainability. The report, supported by the American Society of Plant Biologists, Howard Hughes Medical Institute, the National Science Foundation, the U.S. Department of Agriculture, and the U.S. Department of Energy, provides recommendations regarding future budgets and investments at the state and federal levels.

Congressional Invasive Species Caucus Founded

On July 10, Rep. Mike Thompson (CA-5) and Rep. Dan Benishek (MI-1) founded the bipartisan Congressional Invasive Species Caucus. The Caucus will serve to raise awareness about invasive species, support local communities who are bearing the brunt of this problem, and promote efforts to prevent and control the spread of invasive species. The Caucus will provide opportunities for Members of Congress to meet with other policy makers, organizations and industry leaders that are working to prevent the spread of invasive species.

Rep. Thompson is a senior member of the House Ways and Means Committee and Permanent Select Committee on Intelligence. He represents some of the wine country area north of San Francisco and is a small vineyard owner. He is a co-author of H.R. 1823, Protecting Lakes Against Quagga Act, that would add quagga mussels to the national invasive species list.

Dr. Benishek, a surgeon representing Michigan's Upper Peninsula in his 2nd term, serves on the House Agriculture, Natural Resources, and Veteran's Affairs Committees and is avid hunter and fisherman. He has supported several pieces of legislation that would help curtail invasive species, including the Asian Carp Prevention Act of 2012, and is a member of the Great Lakes Task Force.

Please Consider Signing Petition Opposing Vandalism of Field Trials

Recently, vandals in the Philippines destroyed government field trials of golden rice. The global scientific community is reaching out to us to condemn these acts. For more information, please go to: <http://www.change.org/en-CA/petitions/global-scientific-community-condemns-the-recent-destruction-of-field-trials-of-golden-rice-in-the-philippines>

Lee Van Wychen, Ph.D., Science Policy Director, National and Regional Weed Science Societies
Lee.VanWychen@wssa.net cell: 202-746-4686 www.wssa.net

The 2013 Proceedings from our meeting in San Diego has been posted on the website. You can view and download the document by following this link:

<http://www.wsweedscience.org/Proceedings%20Archive/2013.pdf>

Thanks to Proceedings Editor Bill McCloskey for his work on completing the publication and Webmaster Tony White for getting it posted. If you would like a hard copy of the Proceedings, Curran Associates will soon have it available

(<http://www.proceedings.com/agriculture-conference-proceedings.html>)

WSWS receives a royalty from each purchase.

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.

SCHOLARSHIPS

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 1, 2013.

ELIGIBILITY

Applicants must be an undergraduate or graduate student enrolled in a degree program (B.S., M.S., or Ph.D.) at an accredited college or university in the western region (see <http://www.wsweedscience.org/Society/aboutus.asp> for a list of states), and actively conducting research related to weed science. Applicants must be current WSWS members at the time of application. Applicants must present a paper or poster at the WSWS annual meeting held in the first part of March. Visit <http://www.wsweedscience.org/Meeting/meeting.asp> for meeting details.

APPLICATION PACKAGE

1. Completed and signed Application Form (found at the end of this document).
2. One-page cover letter describing how applicant became interested in weed science, how applicant's research will contribute to the field of weed science and the WSWS objectives, and what future contributions applicant hopes to make to the field of weed science including career goals.
3. 1/2-page CV or resume summary highlighting recent relevant experience through schooling, work and/or internships; awards, honors, publications, leadership positions, community activities.
4. Draft abstract (general plan) for paper or poster presentation at WSWS annual meeting.
5. Two letters of support, one of which must be from the student's graduate or major advisor. Recommenders should be familiar with the applicant's abilities, interests, and career goals.
6. Academic transcripts (unofficial copy is acceptable).

SELECTION CRITERIA

Applicants will be evaluated based on contribution of research to the discipline of weed science and to the WSWS objectives, academic record and scholarly achievements, potential contributions to the future of weed science, and participation in extracurricular pursuits contributing to the advancement of any of the following: weed science, natural resource management, and/or education and mentoring. *Note: Undergraduate and graduate applicants will be evaluated separately.

ADDITIONAL REQUIREMENTS

In addition to presenting their research at the annual meeting, recipients must volunteer approximately 4 hours assisting with various tasks at the meeting, as well as submit a brief research summary (objectives, methods, results; 1 page maximum) upon completion of their project for publication in the WSWS newsletter.

HOW TO APPLY

Applications must be submitted electronically. All documents (application form, cover letter, CV summary, academic transcripts, draft abstract and two letters of support) should be compiled into a single PDF file (preferred) or combined into a single zip folder and sent to WSWS Awards Committee Chair **Richard Arnold** (riarnold@nmsu.edu).

Deadline for applications is 5:00 PM (MST) October 1, 2013.

Incomplete applications will not be considered. Scholarship winners will be contacted by November 1, 2013 and recognized at the Annual Meeting. For questions please contact WSWS Student Section Liaison Chair Craig Beil (ctb081@rams.colostate.edu).

The Western Society of Weed Science is a professional and scientific society of western weed scientists and managers. Members include research scientists, vegetation managers, agency personnel, and industry representatives interested in all aspects of weed biology, ecology, and management.

The objectives of WSWS are:

- To foster and encourage education and research in weed science
- To foster cooperation among state, federal and private agencies in solution of weeds
- To support legislation governing weed control programs, weed research and education
- 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 Outstanding Student Scholarship
APPLICATION FORM**

<p>INSTRUCTIONS: This application is to be completed by the student-applicant. Applications must be submitted electronically. All documents (application form, cover letter, CV summary, academic transcripts, draft abstract and two letters of support) should be compiled into a single PDF file (preferred) or combined into a single zip folder and sent to Richard Arnold (riarnold@nmsu.edu) Applications must be sent by 5:00 PM (MST) <u>October 1, 2013.</u></p>	<p style="text-align: center;"><i>For Committee Use Only</i></p> <p>Undergraduate ____ Graduate _____ (check one)</p> <p>Application Number:</p> <p>Approved:</p> <p>Rank:</p>
<p>Full Name:</p>	
<p>Address:</p> <p>City/ State:</p> <p>Zip Code:</p> <p>Telephone:</p> <p>Email:</p>	
<p>School:</p>	<p>Department:</p>
<p>Degree Sought:</p>	<p>Year in School (if graduate student, how many years completed in program):</p>
<p>Anticipated date of degree completion:</p>	
<p>Graduate or major advisor(s):</p>	
<p>Descriptive Title of Research Project:</p>	
<p>Objective of Research:</p>	

Publications Available From the Western Society of Weed Science

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

_____ Weeds of the West.....	\$34.00
_____ Aquatic and Riparian Weeds of the West.....	\$45.00
_____ Weeds of California and Other Western States.....	\$85.00
_____ Broadleaf and Grass Weeds of the West (CD only,2 discs).....	\$50.00
_____ 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
(click on online store)

To order by mail and pay by check, send this completed form with payment to: WSWS Business Manager, 205 W. Boutz Rd, Bldg 4, Ste 5, Las Cruces, NM 88005. **Contact the Business Manager (Phil Banks) at 575-527-1888 for bulk order prices.**

Shipping Information:

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Las Cruces, NM 88005