



Western Society of Weed Science Newsletter

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SPRING 2017

IN THIS ISSUE:

- President's Report
- Call for Papers & Posters
- Student Liaison Report
- Necrology
- Diversity & Inclusion
- Retirees Request
- Note from the Business Office
- Call for Distinguished Achievement Awards
- Request for Fellows & Honorary Members
- Washington Report
- Membership Renewal Form
- Publication Order Form

Sidebar highlights

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



President's Report by Monte Anderson

The summer board meeting at the Hyatt Regency Orange County began with the very sad news of Gustavo Sbatella's death from a motorcycle accident as he was making his way to our meeting in Garden Grove, CA. He was the Research Section Chair-elect and chair of the Awards committee, and will be greatly missed.

Lynn Sosnoskie was welcomed to the board as Member at large—Public. Her charge is to put together a diversity committee targeted to become an Ad Hoc committee. She will be working closely with President elect Andrew Kniss in developing these plans.

Everything “dicamba” is this summer's emphasis for the WSSA Science Policy team. Stay informed on this (literally) moving target by reading Lee Van Wychen's report and associated links. A special committee is being formed to put together the facts and make recommendations on the evolution of this technology.

Several years ago, the WSWS board decided to move the Proceedings, Research Progress Report, and Newsletter editors to three year, renewable terms. Ideally these terms would be staggered to allow time to find suitable candidates. The initial position needing replacement will be the Proceedings editor position that Bill McCloskey has fulfilled for many years, so anyone interested, please let us know.

A historic moment occurred this summer with final book sales of the “Weeds of the West”. This occurred sooner than expected, as apparently the word was out that they would no longer be available. “Weeds of the West” has been the foundation of our organization's excellent financial standing, and is a tribute to those who developed and nurtured the printing and sales of this highly regarded book.

For 2020, the board had a full discussion on the pros and cons of a joint meeting with the WSSA if they were meeting in Hawaii as all indications are to date. Preliminary information on hotels, WSWS needs, and suggestions were discussed. Strong interest in this was indicated by the membership at the business meeting in Coeur d'Alene. The board felt this was the right time and location to do a joint meeting with the WSSA, so we're planning to go to Hawaii, likely the big island, in 2020!

Program speakers, symposia, scholarship applications, development of committees, etc are all in the works for next year's annual meeting. Take the time to nominate a deserving individual for an award. Voting for the next slate of selected officers will take place earlier than normal, as the Nominating committee has already developed an approved slate of candidates. And thanks to all for donating your time to our organization. Finally, I look forward to seeing everyone in sunny California March 12-15, 2018.

WSWS Annual Meeting March 12-15, 2018 Garden Grove, California

Call for Papers and Posters

Andrew Kniss, Program Chair

The 2018 WSWS Annual Meeting will be held March 12-15 in Anaheim (Garden Grove), California, at the Hyatt Regency Orange County. The WSWS had a successful meeting at this same venue in 2008, and I am confident the site will meet our needs. Early regular registration will be \$250 and student registration will be \$125. Meeting registration will begin October 1, 2017, with information found on the society web page, <http://www.wsweedscience.org/>.

All attendees are invited and encouraged to participate by presenting at least one paper or poster, and multiple submissions are welcome. WSWS will continue to have papers and posters divided into five projects: Agronomic Crops, Horticultural Crops, Weeds of Range and Natural Areas, Basic Biology and Ecology, and Teaching and Technology Transfer.

Oral paper presentations are scheduled every 15 minutes in concurrent sessions. Maintaining a timely schedule in all concurrent sessions 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 author.

Poster display boards for the 2018 meeting will be rented from the facility, and maximum poster size will be limited to 48 inches by 48 inches. Poster presentation affords the author more personal interaction with the audience and often leads to more in-depth discussions with individuals. Poster authors should plan to be available during poster sessions on Tuesday or Wednesday morning to discuss their research.

Title and abstract submission will open October 1, 2017. Deadline for title submission will be December 1, 2017, but abstracts may be entered and revised any time through late February, 2018. Title and abstract submission will again be managed through the WSSA abstract system, <http://wssaabstracts.com/>. Information also will be available on the WSWS web site. 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.

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

Plan to attend the Anaheim meeting to hear about the latest research, recommendations, and findings among a wide range of weed science topics.

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Legislative

Student Liaison Report

Caio Brunharo

Last week the WSWs Board of Directors held its summer meeting in Anaheim, California, at next year's annual meeting venue. The venue is great and I am sure that we will have a great time at our annual meeting. First of all, I would like to thank those of you who participated in the survey that was sent out last month, your input is very much appreciated and essential to maintain student participation in the society. If you are interested in reading the Student Liaison report and some of the topics that students want to be addressed, here is the link:

<http://www.wsweedscience.org/wp-content/uploads/2017-Student-liaison-Summer-BOD-meeting-report.pdf>.

In the last few years, the number of applicants for the Elena Sanchez Memorial Outstanding Student Scholarship has been decreasing. It has been brought to our attention by our fellow students that a longer application period, as well as more reminders, may be beneficial. Therefore, it is time for you to start preparing your application package! A total of three students (graduate and undergraduate) will receive each a \$1000 award to cover research costs, travel expenses for you to attend the WSWs annual meeting, or just as a stipend. For more information, please visit the student resources page of the WSWs website (<http://www.wsweedscience.org/student-site/>). There you will find application instructions, as well as tips to improve your presentation, student contest criteria, free student events held at the annual meeting, and other useful information for WSWs student members. **The application deadline is October 1st**, and scholarship winners will be notified by November 1st. Mariano Galla, Neeta Soni, and Caio Brunharo were the recipients of the 2017 travel award; you will find more about their research in the 2017 Annual Meeting Proceedings.

I would like to remind everyone that students are strongly encouraged to be involved in the society. Examples of how to participate include volunteering to be on one of the various committees of the WSWs or to nominate yourself for the Student Liaison Chair-Elect position. More information about student opportunities will be emailed to you as the annual meeting approaches. If you have questions or would like to get involved right away in the society don't hesitate to contact me or Clint for more information.

Always keep an eye on the twitter ([@WSWSstudents](https://twitter.com/WSWSstudents)) and Facebook (<https://www.facebook.com/WSWSStudentSection>) pages for reminders and information.

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Necrology

Gustavo Sbatella

1964 - 2017

Gustavo Marcelo Sbatella passed away on August 2, 2017 outside of Valley of Fire State Park in Nevada, while traveling to the WSWS summer board meeting.

Gustavo was born on October 17, 1964. He was the son of Ricardo Aristides Sbatella and Maria Elena Alion and grew up in Buenos Aires, Argentina.

He received his bachelor's degree in agronomy from the Universidad de Nacional de Buenos Aires, Argentina in 1990. He came to Wyoming in 2002 where he earned his master's degree in 2004, and his doctorate degree in 2006, both in the College of Agriculture and Natural Resources from the University of Wyoming.

Following his education, he worked as a Post Doctoral Research Associate for the University of Nebraska from 2007 to 2011, before taking a job as an Assistant Professor at Oregon State University from 2011 to 2014. He returned to Wyoming in 2014 to become an Assistant Professor for the College of Agriculture where he specialized in irrigated crop and weed management. In this position, he taught courses and mentored graduate students, as well as conducted research and managed a valued extension program at the Powell Research and Extension Center.

Perhaps the greatest thing that can be said of Gustavo is that he loved life and the people in his life. He was a devoted father, grandfather, and friend. He loved his job and was dedicated to his research with a fervor that he instilled in his many students and colleagues. An avid motorcyclist and outdoors enthusiast, Gustavo often travelled around the state and region, soaking up the scenery on his adventures.

Gustavo was passionate about football (soccer) and brought many people together through his love of the game. During his time at University of Wyoming, Gustavo was instrumental in organizing the pick-up soccer games and match watch parties among the international students and other soccer aficionados on campus, a tradition that is still going strong today. He has left a legacy of camaraderie, compassion, and fun among those who were privileged to know him.

He is survived by his two children, Ángel Alex Sbatella and Mailen Sbatella, their mother, Maria Rosa Bravo, his two grandchildren, Adrian and Azariel, and his brother Ricardo.

A memorial account has been set up at UniWyo Federal Credit Union in Laramie in Gustavo's name. In lieu of flowers, the family is asking for contributions to be made to this fund.

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Publications

WSWS ONLINE EDUCATION
<http://passel.unl.edu/pages/in dex2col.php?category=weedsci ence#>

WSSA Journals Website Online
www.WSSAJournals.org

CALENDAR OF EVENTS

**26th Asian Pacific Weed
Science Society Conference
'Weed Science for People,
Agriculture, and Nature'
September 19-22, 2017
Kyoto, Japan
[www.c-
linkage.co.jp/apwss2017/](http://www.c-linkage.co.jp/apwss2017/)**

**71st Annual Meeting of the
Canadian Weed Science
Society
Nov 20-24, 2017
Saskatoon, Canada
www.weedscience.ca**

**North Central Weed Science
Society Annual Meeting
Dec. 4-7, 2017
St. Louis, Missouri
www.ncwss.org**

**Northeastern Weed Science
Annual Meeting
Jan. 9-11, 2018
Philadelphia, Pennsylvania
www.newss.org**

**Southern Weed Science
Society Annual Meeting
Jan. 22-24, 2018
Atlanta, Georgia
www.swss.ws**

**Weed Science Society of
America Annual Meeting
Jan 29 – Feb 1, 2018
Arlington, Virginia
www.wssa.net**

**Western Society of Weed
Science Annual Meeting
March 12-15, 2018
Garden Grove, California
www.wsweedscience.org**

Diversity and Inclusion in the WSWS

Andrew Kniss, President Elect

At the recent summer meeting, the WSWS board of directors approved the appointment of an *ad hoc* (for now) committee on diversity and inclusion. Our charge to the committee will be loosely built around developing ideas and considering feasibility for actions the society can take to encourage diversity within WSWS membership, on committee and board representation, and attendance at the annual meeting. I hope the WSWS can become a leader in this respect within the weed science discipline, and this committee will be instrumental in allowing our society to make needed gains in this area. We are currently looking for WSWS members to serve the society in this important effort. If you are interested in being considered for this committee on diversity and inclusion, please contact President-Elect Andrew Kniss (akniss@uwyo.edu) and/or Member-at-Large Lynn Sosnoskie (lynn.sosnoskie@wsu.edu).

Please help us identify WSWS members who have recently or soon will be retiring. If you or someone you know fits this description, please send information to Kirk Howatt (kirk.howatt@ndsu.edu). We will find out if the rumor is true and prepare to recognize individuals at the 2018 Annual Meeting in Garden Grove, CA. That's in Orange County near Anaheim.

A Note from the Business Office

Tara Steinke

WSWS held a successful Board of Directors Meeting in Anaheim, CA in early August. Although the meeting was overshadowed by the tragic passing of Board member Gustavo Sbatella, we were able to tour the hotel, and make plans for the 2018 Annual Meeting.

The Hyatt Regency Orange County in Anaheim has undergone a complete renovation since WSWS last had our meeting there. If flying to the meeting the closest airport is the John Wayne International Airport (SNA). It is a 15-20 minute (give or take depending on traffic) Uber or Taxi ride to the hotel.

Keep watching the website as we will open registration for the 2018 meeting at the same time as the Title and Abstract site opens, which will be the first part of October. <http://www.wsweedscience.org/annual-meeting/>

As indicated last year in the Summer newsletter, WSWS has decided not to reprint the "Weeds of the West" book, and we are officially sold out of the books. Be watching for signed copies of the book to show up on the Silent Auction table of future Annual Meetings.

If you ever have any questions or need anything from me please do not hesitate to contact the IMI office at **303-327-8016** or email me at tara@imigroup.org.

2018 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 1, 2017**.

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 1, 2017**:

Roger Gast
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(317) 337-3004
regast@dow.com

REQUEST FOR WSWF FELLOW AND HONORARY MEMBER NOMINATIONS

BY

Dr. Bill Cobb, 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, 2017**
TO:

Dr. Bill Cobb
(509) 783-3429

wtcobb42@gmail.com

Electronic submission preferred

WASHINGTON REPORT

August 9, 2017

Lee Van Wychen

Ag Industry, Do We Have a Problem Yet?

University of Missouri Integrated Pest & Crop Management

Author: **Kevin Bradley**

Published: **July 25, 2017**

It's funny how we can be living through a situation or watch something unfold in front of our very eyes and one person can view it one way and another can see it totally different. If you think about it, this happens all the time at sporting events. Not too long ago I was watching a Cardinals game with some Cubs fans and all of a sudden they all started yelling that our player was out when I could clearly see that he was in fact, safe. How can that be? We were all watching the same thing at the same time...

I've been trying to wrap my head around this whole issue of perspective lately. I think a person's perspective is an important thing to consider when it comes to the issues we are seeing with off-target movement of dicamba in this country, and especially when it comes to the reasons that are offered for off-target movement. Never has a difference in perspective been more apparent to me than what I have seen happen for the past year, and especially for the past two months, within the agricultural industry.

I get calls daily from those who say we have a major problem with off-target movement of dicamba and something has to be done about it. Most of these calls are from soybean farmers who have had their crops drifted onto. Some are from homeowners or vegetable producers. Others are from representatives with other competing companies that don't have a stake in any dicamba product or the Xtend technology. There's that perspective thing again. More recently, most of these calls are from independent agronomists, agricultural retailers, and custom applicators who have been making applications of these approved dicamba formulations and have now decided to stop spraying these products for the rest of the season because of the off-target movement that has occurred despite their best efforts to keep these products in place.

I also get calls daily (and read articles and company "position" blogs, posts, tweets, etc.) from those who say we don't have a major problem at all, and that people like me are drawing more attention to an issue that isn't really a problem, and that this is just a normal part of the "learning curve" with any new technology. Most of these calls (or articles, blogs, posts, tweets, etc.) are from company representatives that either make one of the approved dicamba products, or sell the Xtend trait. Some of these calls are also from farmers and/or farmer seed dealers who say they have sprayed one of the approved products on their Xtend soybean and have had zero problems. More perspectives I guess.

I shouldn't be surprised by all this but I must confess it is baffling to me; here we have people within the agricultural industry that are all *presumably* watching the same thing unfold in front of their eyes at the same time, yet these people have a completely different perspective as to how significant this issue really is. So I thought maybe I would try to expand all of our perspectives (mine included) outside of just what is happening in Missouri or anywhere else. I thought I would try to put a 'U.S. perspective' on this issue.

The purpose of this article is NOT to debate whether the off-target dicamba problems are due to drift, sprayer error, volatility, contaminated glufosinate, calcium deficiency, temperature inversions, inadequate training by universities, generic dicamba, the coming solar eclipse, or any of the dozens of other explanations I've seen put forward. I've already spent plenty of my summer arguing about these reasons and based on current responses from industry, it looks as if I'll be spending most of the rest of the year doing more of the same. Regardless, several of my colleagues have written brilliantly on these topics so I've decided there is no need for me to try to re-invent the wheel and tell you something that I literally could not say any better than what has already been said. If you have not read these articles already, I would highly recommend that you do so. They are well worth the read (from my perspective): [The Dicamba Dilemma in Illinois: Facts and Speculations](#), by Aaron Hager, Associate Professor, University of Illinois; [I Can't Keep Dicamba in the Field](#) by Larry Steckel, Extension Weed Specialist, University of Tennessee; and [Thoughts on the Dicamba Dilemma](#) by Bob Hartzler, Professor of Agronomy, Iowa State University.

The purpose of this article is simply to broaden our view and provide a national perspective of the problem as it stands right now, in hopes that at least some in the industry can agree that this is a substantial problem that needs to be addressed. Oops, I kind of let my own perspective slip there a bit.

In order to do this, I requested information from many state Departments of Ag about the number of official dicamba-related investigations that are currently under way in 2017. This information is shown in Figure 1. If a state isn't colored in on this map, it simply means that either I did not get a response from that state, or that I never requested any info because they produce little to no cotton or soybean. However, as Dr. Hager pointed out in his recent article, to estimate the extent of the dicamba injury problem using the number of complaints filed with the state Departments of Ag as the sole metric would be to "grossly underestimate the current reality".

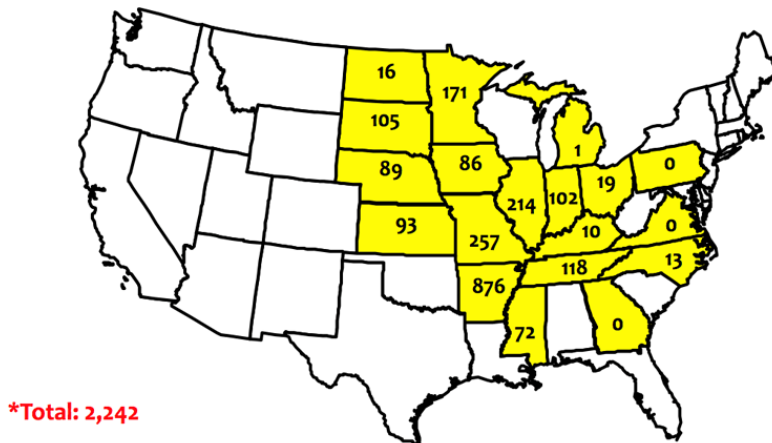


Figure 1. Official dicamba-related injury investigations as reported by state departments of agriculture (as of July 19, 2017).

Because I agree with Dr. Hager's statement, I also polled a number of university extension weed scientists from around the country and asked them to provide me with their best estimate as to the number of soybean acres injured by dicamba in their respective states. These estimates are shown in Figure 2. I'm sure many will have problems with these numbers, but I can assure you that none of these individuals took these estimates lightly. These estimates weren't just generated out of thin air, they were generated by polling Extension agents around the state; by personal field visits of affected areas; through emails, calls and texts from injured parties; and through various consultations with trusted ag retailers, applicators, and farmers around each state. As with Figure 1, if a state isn't colored in on the map, it is either because there was no weed science contact in that state, or because that state produces little to no soybean.

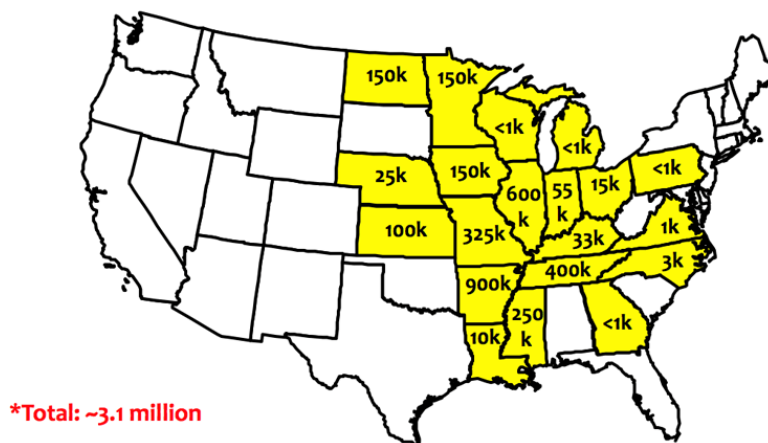


Figure 2. Estimates of dicamba-injured soybean acreage as reported by state extension weed scientists (as of July 19, 2017).

I didn't know what kind of responses I would get when I set out to make these maps. After looking through the official responses and estimates I would say that this exercise has broadened my perspective but hasn't really changed it. For everyone who reads this article and sees these maps I leave you with the two questions:

First, does 1,411 official dicamba-related injury investigations and/or approximately 2.5 million acres of dicamba-injured soybean constitute a problem for U.S. agriculture? I guess it depends on your perspective but my answer is an emphatic yes. If you think so as well, let others know how you feel and let's stop the standard denial routine that I have heard so often this season. Instead, let's put our time and effort into figuring out where we go from here as an industry and what's going to be different about next season.

Second, I said previously that the purpose of this article is NOT to debate about the reasons for off target movement. And it isn't. And I'm not. But the reasons for off-target movement of dicamba are the number one thing we are going to have to discuss if you agree that there is a problem. So my last question is this; can you look at the scale and the magnitude of the problem on these maps and really believe that all of this can collectively be explained by some combination of physical drift, sprayer error, failure to follow guidelines, temperature inversions, generic dicamba usage, contaminated glufosinate products, and improper sprayer clean out, but that volatility is not also a factor? I know what my perspective is, what's yours?

FY 2018 Federal Budget

The House and Senate have recently marked up their FY 2018 appropriations bills for agriculture and provided much more favorable numbers than the President's budget request. The Senate numbers are particularly favorable with increases in FY 2018 funding for USDA's National Institute of Food and Agriculture (NIFA), Agricultural Research Service (ARS), Economic Research Service (ERS), National Agricultural Statistics Service (NASS), APHIS, and NRCS compared to FY 2017. The final endgame for the FY 2018 appropriations process is still a big question mark, but given the House and Senate numbers for USDA programs important to weed science, we should be ok.

Selected USDA Discretionary Appropriations Accounts

Program	2015 Final	2016 Final	2017 Final	2018 President	2018 House	2018 Senate
----- Millions of Dollars -----						
NIFA	1289	1326	1362	1253	1341	1373
Hatch Act	244	244	244	243	244	244
Smith-Lever 3b & c	300	300	300	299	300	300
AFRI grants	325	350	375	349	375	375
IR-4	11.9	11.9	11.9	11.9	11.9	11.9
CPPM*	17.2	17.2	20	14	20	20
ARS**	1132	1143	1170	993	1133	1182
ERS	85	85	86	77	77	86
NASS	172	168	171	186	184	192
APHIS	871	894	946	810	906	953
NRCS	846	850	864	766	859	874

*Crop Protection and Pest Management (CPPM): Addresses high priority pest issues using IPM.

**House and Senate Appropriators rejected the White House proposal to close 17 of ARS's 112 research facilities, estimated to be at least \$1 billion behind in deferred maintenance needs.

Davis and Panetta Launch House Ag Research Caucus

House Agriculture Committee members Jimmy Panetta (D-CA) and Rodney Davis (R-IL) have launched the Congressional Agriculture Research Caucus to promote research needs in advance of the 2018 farm bill. Davis and Panetta are both members of the House Ag Subcommittee on Biotechnology, Horticulture and Research, with Davis serving as Chair.

Rep. Panetta: *"As a representative of the Salad Bowl of the World, I believe it is of the utmost importance to equip our growers, shippers, and farmworkers with the most effective tools possible. Strategic investments in research for plant breeding, crop protections, and mechanization will support the future success of the agriculture industry while also helping to address major concerns relating to resource conservation and labor shortages. I look forward to working with Congressman Davis and our colleagues on both sides of the aisle to further support our nation's agriculture industry."*

Rep. Davis: *“By investing in agricultural research today, we will ensure U.S. agriculture remains competitive globally and continues to lead the way in food and agriculture innovation. My district is home to several major universities that are at the forefront of agricultural research critical to our state and national economies. Additionally, the potential for public-private partnership between industry and academia allows us to expand our horizon and reach new goals. I look forward to joining my colleagues on both sides of the aisle to make agriculture research a priority.”*

Current Ag Research Caucus members include: Newhouse (R-WA), Schrader (D-OR), Yoho (R-FL), Grisham (D-NM), Rooney (R-FL), Loeb sack (D-IA), Blum (R-IA), Pingree (D-ME), Hice (R-GA), Carbajal (D-CA), Kelly (R-MS), Nolan (D-MN), Marshall (R-KS), Maloney (D-NY), Thompson (R-PA), Takano (D-CA), Jayapal (D-WA), Shea-Porter (D-NH), and Garamendi (D-CA).

ID'ing Palmer Amaranth Seed in Conservation Seed Mixes

A great example of the value of USDA capacity funds return on investment is the work done by Dr. Patrick Tranel's lab at the University of Illinois that was supported by Hatch Act funds. They developed and validated a qPCR assay for distinguishing Palmer amaranth from 12 other *Amaranthus* species. The assay can consistently detect a single Palmer amaranth seed when present in a pool of 100 *Amaranthus* species' seeds. The key is to make sure every seed is ground up during the extraction process. **The 100 seed test only costs \$50.** The only option available prior to that was a California company that tests individual seeds using DNA sequencing that costs \$100 per seed. Tranel said the qPCR assay is available to other testing labs for free. The testing protocol is published in *Pest Mang Sci*: [A quantitative assay for *Amaranthus palmeri* identification.](#)

Farm Bill Hearings in Full Swing by House and Senate

There have been several hearings already on the Research Title of the Farm Bill where we have **emphasized a balanced portfolio** of funding for the entire USDA research, extension, and education (REE) mission area. On June 15, the Senate Ag Committee held a hearing titled “Agricultural Research: Perspectives on Past and Future Successes for the 2018 Farm Bill.” During the week of July 10, the House Ag Committee held two Farm Bill hearings on how to foster technological innovations for producers, which I believe is great opportunity for weed science (see next story).

During the week of July 31, the House Ag Committee conducted “open mic” listening sessions titled “Conversations in the Field” at San Angelo, TX, Morgan, MN, and Modesto, CA. Another field hearing is scheduled for August 30, 2017 at the Farm Progress Show in Decatur, IL. Anyone can step up to the mic for 2 minutes and talk about their concerns. I'm also working with some invasive species groups to get “noxious weeds” included as part of the many “plant pest” programs that are funded in the various Titles of the Farm Bill (i.e. conservation, trade, forestry, research).

Fennimore Presents ‘Robotic Weed Wars’ Seminar On Capitol Hill on May 22

On May 22, 2017, Dr. Steve Fennimore from UC-Davis presented a seminar on Capitol Hill titled “Robotic Weed Wars: A New Game, New Players and New Rules”. The seminar was part of the National Coalition for Food and Agricultural Research (NC-FAR) Lunch-n-Learn seminar series. WSSA is a member of NC-FAR and a sponsor of the seminar series. NC-FAR is a consensus-based and customer-led coalition that serves as a forum and a unified voice in support of sustaining and increasing public investment at the national level in food and agricultural research, extension and education.

Abstract: *U.S. vegetable growers are mainly dependent on hand weeding to achieve acceptable weed control since there are relatively few herbicides registered for use in these small acreage crops due to the nearly \$300 million cost of researching, developing, and testing a new herbicide that would meet today's regulatory requirements. Labor shortages have led to higher hand-weeding costs that run \$150 to \$300 per acre, thus vegetable growers have begun to adopt automated robotic weeders. Machine vision technology, together with data processors, have been developed to enable commercial machines to recognize crop row patterns and control automated devices that perform tasks such as removal of intra-row weeds, as well as to thin crops to desired stands. However, it is doubtful that private funding alone from small startup companies will be adequate to develop automated robotic weeders custom-designed for U.S. crops. Public funding is needed to help train students in the multidisciplinary fields of science, technology, and engineering needed to advance the development of automated robotic weeders. Research is needed on more challenging precision weed control technologies, such as lasers or sand abrasives to remove weeds. These public investments would be a win-win for everyone as it generates higher paying jobs in the crop protection industry, leads to the use of lower risk weed control tactics, and maintains a safe and affordable food supply.*

National Academies Seek Input on Future of Food and Agriculture Research

Science Breakthroughs 2030: A Strategy for Food and Agricultural Research is a new National Academies of Science study to identify ambitious scientific opportunities in food and agriculture research. They are asking for input from scientists to identify emerging opportunities. You can submit your ideas on [IdeaBuzz](#) and “vote” and comment on ideas that have already been submitted. They are also inviting people to participate in-person or online in a Town Hall meeting on August 8th in the National Academy of Sciences Auditorium in Washington DC. Learn more and [register for the Town Hall here](#).

Weed Science Societies Comment on APHIS Revision of its Biotechnology Regulations.

The National and Regional Weed Science Societies [submitted comments](#) on APHIS’s proposed rule regarding the importation, interstate movement, and environmental release of certain genetically engineered (GE) organisms. While we complimented APHIS on the many positive aspects of the proposal (i.e. moving from a “regulate first, then analyze” approach to an “analyze first, then regulate only if necessary”), we encouraged APHIS to re-propose a rule that minimizes regulatory uncertainty related to their weed risk assessment model. We expressed our willingness to partner with APHIS in identifying specific, risk-based criteria for assessing GE crops for potential ‘weediness,’ but stressed that federal noxious weed authority in the Plant Protection Act should not be used to regulate GE crops.

\$75 Million Available from APHIS for Pest Detection, Surveillance, and Identification

APHIS issued a call for “suggestions” (i.e. proposals) for its “**Plant Pest and Disease Management and Disaster Prevention Program**.” The FY 2018 open period is **July 10, 2017, through August 18, 2017**. In FY 2017, APHIS received 720 proposals and **funded 480 of them**, a 66% success rate. There were only a few related to weeds, but only because there were not that many applications (i.e. “suggestions”) for weed and weed seed surveillance, identification, and threat mitigation.

WOTUS Rule Rescinded. Rewrite is Next Step

On July 27, the EPA and Army Corps of Engineers published their proposed rule, "Definition of "Waters of the United States (WOTUS)" - Recodification of Pre-Existing Rules." This is the first step of a two-step process intended to review and revise the definition of "waters of the United States" consistent with President Trump's Executive Order of February 28, 2017.

This first step proposes to rescind the 2015 WOTUS rule in the Code of Federal Regulations. This is in order to re-codify a definition of "waters of the United States," which currently governs administration of the Clean Water Act but has been stayed by a decision issued by the U.S. Court of Appeals for the Sixth Circuit in a lawsuit over the agencies' 2015 definition. Proposing to re-codify the regulations that existed before the 2015 Clean Water Rule will provide continuity and certainty for regulated entities, the States, agency staff and the public. Nothing in the proposed rule restricts the ability of States to protect waters within their boundaries by defining the scope of “navigable waters” regulated under State law more broadly than the federal law definition.

The EPA and Army Corp will issue a second notice and comment period on a new proposed rule that interprets “navigable waters” that is consistent with Justice Scalia’s opinion in [Rapanos v. United States \(2006\)](#). In that opinion, Scalia argued that federal jurisdiction of the Clean Water Act extends only to water bodies with a permanent flow or non-navigable waterways that connect via surface water with areas with permanent flow.

Comments on the first step dealing with the recodification of the existing rule are **due on August 28, 2017**. Comments should be limited to the appropriateness of the rescission and not on the scope of the definition of WOTUS. Comments can be submitted at: <https://www.regulations.gov/document?D=EPA-HQ-OW-2017-0203-0001>

“NPDES Fix” Legislation

On May 24, the House passed the Reducing Regulatory Burdens Act (HR 953) by a vote of 256-165. The Senate has not acted on its companion measure (S 340). This is the fourth time this legislation has been up for a vote in the past 7 years, each time passing the House, but ending up stalled in the Senate. The National and Regional Weed Science Societies have supported the NPDES-fix legislation from the start and endorsed a letter to Congress urging passage of H.R. 953, along with more than 100 other organizations.

CABI Invasive Species Compendium Training Available

The CABI (Centre for Agriculture and Biosciences International) Invasive Species Compendium (ISC), <http://www.cabi.org/isc/>, is an encyclopedic resource for 10,000+ invasive species in all taxa that brings together a wide range of different types of science-based information to support decision-making in invasive species management

worldwide. It comprises detailed datasheets that have been written by experts, edited by an independent scientific organization, peer reviewed and enhanced with data from specialist organizations, images, maps, and a bibliographic database of abstracts and full text articles. New datasheets and data sets continue to be added on a weekly basis. During any given month the CABI ISC is accessed by 81,000 users from 220 countries.

During the July 2017 public meeting of the Federal Interagency Committee for the Management of Noxious and Exotic Weeds (FICMNEW), long-serving invasive species professional Hilda Diaz-Soltero from USDA APHIS provided an overview and training on how to most effectively use and search the ISC for meeting attendees. Hilda's recorded presentation and training is available at: <https://my.usgs.gov/confluence/display/FICMNEW/Presentation+Recordings>.

Her powerpoint slides (as well as other presentations from previous FICMNEW meetings) are available at: <https://my.usgs.gov/confluence/display/FICMNEW/Presentations>.

For questions about the CABI ISC, please contact Hilda Díaz-Soltero, Caribbean Advisor to the APHIS Administrator: Hilda.Diaz-Soltero@aphis.usda.gov or cell (202) 412-0478.

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2017 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
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Mailing address	City	State	Zip code
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Phone # w/area code	e-mail address
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Unemployed ___ Retired ___ other (specify) _____

Send to: WSWS/IMI
12011 Tejon St., Ste 700
Westminster, CO 80234

Questions? info@wsweedscience.org or (303) 327-8016

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
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All publications can be ordered online at www.wsweedscience.org (click on **WEED BOOKS**)

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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.



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