CWSS **Α**Μ Vol 33, Number 3, Fall 2016

North Central Weed Science Society

www.ncwss.org

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North Central Weed Science Society

If you are a member of the **NCWSS** and have material you would like to submit to the Newsletter, please send it to:

Vince Davis at Vince.davis@basf.com



Des Moines, IA Welcomes the NCWSS December 12-15

The city of Des Moines, IA and the local arrangements committee welcome you to the NCWSS annual meeting. This year's meeting will take place at the Des Moines Marriott, Downtown hotel. The Marriott staff is eager to make this an outstanding venue for our meeting and the Executive Committee is developing an exciting program. If you want to break out of the meetings or extend your stay, you can find a variety of information and attractions in Des Moines at: https:// www.catchdesmoines.com/ In addition, there are a variety of restaurants near the hotel. If you have questions about the meeting please contact the Local Arrangements Committee Chair, Mike Owen at mdowen@iastate.edu.

You can register and make a room reservation at the Annual Meeting page on the website: http://ncwss.org/annual-meeting/

We look forward to seeing you in December.

Presidents Message - Anita Dille



I hope that everyone is having a safe and productive harvest season! As we crunch the vield numbers for those summer crops, and see what impact the weeds had this year, we start planning for another chance to manage them next year. We

have many great titles submitted for poster and paper presentations for the upcoming meeting, so I look forward to hearing about all your activities from this past season.

Our President-Elect and Program Chair, Greg Dahl, together with the Local Arrangements Chair, Mike Owen, and their committees have developed a great program for the 71st annual NCWSS meeting to be in Des Moines, IA. Several symposia and a technology event are being planned for this coming meeting. We will have a full program, including a great set of student paper and poster contests that are being organized for the meeting. We will be using a Guidebook App, so I hope that you will be able to plan and schedule to see and hear as many presentations as possible with this additional tool.

The NCWSS Board of Directors met in West Lafayette, IN on July 27, just prior to the summer weed contest. Key action item was to review and vote on our choice of Executive Secretary to lead the NCWSS as Phil Banks will retire after the current meeting. Our organization has benefited greatly from the leadership provided by Phil Banks since he stepped in to be our Executive Secretary at the 2009 annual meeting. We wish Phil all the best in the future. We have approved and are excited to announce that we have signed a contract with Gary Leeper, Vice President and CEO of Interactive Management, Inc., (IMI) with their headquarters in Westminster, CO. Representatives from IMI will be in attendance at our annual meeting to begin the transition. Please thank Phil and his team for all their contributions, and introduce yourself to the folks from IMI.

Our main event over the summer was the Collegiate Weed Science Contest, hosted by Purdue University at the Purdue Diagnostic Training Center at the Purdue Agronomy Center for Research and Education. Our hosts, Bill Johnson and Bryan Young, together with their staff and graduate students provided a fantastic professional development event for our graduate and undergraduate students in weed science. Thank you to all the volunteers and judges, students and coaches, and everyone that helped to make this event a resounding success. The future for weed science continues to look great with the number of participants at the contest.

I am looking forward to seeing you in Des Moines as we anticipate another great meeting. Encourage others to join us as well! Enjoy the fall season! Sincerely, Anita Dille

2016 Annual Meeting Information from the Program Chair Greg Dahl

The 71st annual meeting of the NCWSS is approaching soon! The meeting will be held December 12 to 15, 2016 at the Des Moines Marriott, Downtown hotel in Des Moines, IA. Mike Owen and the whole local arrangements team are working with hotel staff and will host a wonderful meeting. Directions and logistics information for your travel are as follows:

Driving Directions:

- From Des Moines International Airport (DSM) to Marriott downtown: Turn left onto Fleur Drive. Travel 3.1 miles and take the ramp for Fleur Drive/Grand Avenue/Locust Street/Downtown. Travel 0.8 miles and make a slight right onto Locust Street. Continue east to 6th Avenue and turn left. Proceed one block to Grand Avenue and turn left again. The hotel will be on the left.
- From Minneapolis/St. Paul, MN. to Marriott Downtown: Travel South on I-35. Keep left to continue on I-235 W. Follow signs for Interstate 235 W/Des Moines and take exit 8A toward Des Moines/Downtown/Iowa Events Center. Keep right, follow signs for 3rd St. and merge onto 3rd St. Turn right onto Grand Ave. Destination will be on the left.
- From Davenport, IA to Marriott Downtown: Travel West on I-80. Take exit 137A on the left to merge onto I-235 W toward Des Moines. Take exit 8A toward Des Moines/ Downtown/Iowa Events Center. Keep right, follow signs for 3rd St and merge onto 3rd St. Turn right onto Grand Ave., destination will be on the left
- From Kansas City, MO to Marriott Downtown: Travel North on I-35. Take exit 72A to merge onto I-235 E toward W Des Moines/Des Moines. Take exit 8A toward Downtown/Des Moines/Iowa Events Center. Keep right, follow signs for 7th Street/6th Ave./5th Ave. Turn right onto 7th St. Turn right onto Grand Ave. Destination will be on the left. Turn left on Capitol. The entrance to the hotel will be on your left.
- From Omaha, NE to Marriott Downtown: Travel East on I-80 and follow signs for Des Moines. Keep left at the fork to continue on I-235 E. Take exit 8A toward Downtown/Des Moines/ Iowa Events Center. Keep right, follow signs for 7th Street/6th Ave/5th Ave. Turn right onto 7th St. Turn right onto Grand Ave and destination will be on the left.

Car Service from Des Moines International Airport (Airport Phone: +1 515 256 5050)

- Airport shuttle service, on request, complimentary Shuttle Phone: +1 515 245 5500
- Yellow Cab Co. Approximate cost is \$20 one way for airport transportation.

Car Rentals:

Avis (www.Avis.com) Des Moines International Airport 5800 Fleur Dr. Des Moines, 50315 Phone: +1-515-256-5623

Enterprise Rent-A-Car (www.Enterprise.com)

Des Moines International Airport 5800 Fleur Dr. Des Moines, Iowa 50321 Phone: +1-515-256-5665

Hertz (www.Hertz.com) Des Moines International Airport 5800 Fleur Dr. Des Moines, Iowa 50321 Phone: +1-515-256-5839

Hotel Information:

Des Moines Marriott Downtown 700 Grand Avenue Des Moines, Iowa 50309 USA Phone: +1-515-245-5500 Fax: +1-515-245-5567 http://www.marriott.com/hotels/travel/dsmia-desmoines-marriott-downtown/

Parking:

The Marriott offers Valet parking for 24 USD daily, and off-site parking is 14 USD daily. The hotel cannot accommodate oversized vehicles. Hotel garage height limit is 6'3". Offsite options are available.

Area Attractions:

Take the family out to Blank Park Zoo, located just 5 miles from our capital city hotel.

Experience world-renowned pieces of art at the Des Moines Art Center, a short drive west.

See a show, concert or sporting event when staying at our hotel near Wells Fargo Arena.

More ideas at: <u>http://www.marriott.com/hotels/local-things-to-do/dsmia-des-moines-marriott-downtown/</u>

Or, <u>http://www.traveliowa.com/aspx/cities.aspx?</u> <u>cid=721</u>

2016 Annual Meeting - Continued

General Session

The general session will begin with a "Welcome to Iowa" address by Bill Northey, Secretary of the Iowa Department of Agriculture and Land Stewardship. Our Keynote address will be presented by Dr. Dermot Hayes, Pioneer Chair in Agribusiness at Iowa State University. His timely presentation will be "Bridging to Better Times". I am eager to hear what he has to say. Lee Van Wychen will provide an update of Washington, DC issues and activities. Anita Dille will give the annual NCWSS Presidential Address followed by a necrology report by Aaron Hager.

Awards Luncheon and Social

Join us as we recognize and celebrate with our new NCWSS Fellows, Distinguished Achievement Award winners, and student contest winners at our annual NCWSS Awards Luncheon on Wednesday, December 14. Mike Moechnig will be the Master of Ceremonies at the Luncheon. An all-Society Social event, sponsored by our sustaining members and open to all NCWSS will be on Wednesday evening.

Symposia

On Wednesday morning, Amit Jahla will moderate a two-part symposium on "Public Issues and Communication Issues" that is combined with the Extension Paper Section. There is no shortage of issues this year and our presenters will share valuable insights. Presenters in the first part include: Arlene Cotie with "Stewardship: What is Our Role?", Meghan Anderson on "Palmer Amaranth: Uninvited Guest to Conservation Plantings", Kevin Bradley on "A Season to Remember: Our Experiences with Offtarget Movement of Dicamba in Missouri", Lee Van Wychen on "Science Policy Outlook for 2017" and Michael Barrett on "Regulatory Challenges to the Continued Availability of Herbicides and their Utility. Presenters in the second part are Brandy Tannihill, who will discuss "Millennials in Agriculture Industry" and Andrew Kniss will discuss "Experiences and Impressions Using New Technology and Methods in Weed Education and Outreach".

On Wednesday afternoon, Travis Legleiter will moderate a symposium, "New Technology Presentations", featuring new technology as it relates to weed control and farm management. There are great presentations lined up and I am eager to discover how to put them into practice.

Also on Wednesday afternoon, Paul Marquart will host the popular "What's New in Industry" session. Paul Marquart will also host the Industry breakfast and meeting on Thursday, December 15. The speaker for the Industry Breakfast will be Rodney Williamson with the Iowa Corn Growers Association, who will speak about the Des Moines Waterworks Lawsuit.

Student Activities

There will be a BASF-sponsored Student Mixer event on Monday evening, December 12. This is always a fun event! We are also looking forward to excellent poster and paper presentations by the undergraduate and graduate students at the conference. A Graduate Student Luncheon and Business Meeting sponsored by Dow AgroSciences is scheduled for noon on Tuesday, December 13. These activities will provide opportunities for fun and professional development at the conference.

Committee Meetings

Several committee meetings are scheduled throughout the conference, and we welcome your participation and input. These meetings are open to all NCWSS members, and your help and ideas are very important to help guide future meetings, and to highlight our society's role in the scientific community as educators and weed managers. If you have an interest in serving on a particular committee, please contact the committee chair (listed in program), and let the NCWSS President know.

Titles, Abstracts, and Presentation Loading The Titles are in and the program is organized. There are a large number of posters this year. Please make sure to visit the posters on Tuesday, December 13, 2016. There will be two poster sessions on Tuesday, one at 8:00 am and one at 5:00 pm. **Due to scheduling and space issues the posters MUST be taken down by 8:00 pm on Tuesday.**

The same web-based submission system will be used to upload all abstracts and for oral PowerPoint presentations. PowerPoint presentation files for all oral papers need to be uploaded to the same web site approximately 7 days prior to the conference (December 5, 2016). This is critical for the section chairs to ensure that your presentation will work on their equipment prior to the conference and to facilitate a smooth program! Authors have the option of voluntarily having their presentation recorded and posted for viewing by members-only at a later date on the NCWSS web site. The recording and posting of presentations is strictly voluntary. We ask that meeting attendees **DO NOT** take photographs or video record presentations, unless they have explicit permission from the presenter to do so.

"Women in Weed Science" Networking Breakfast Anita Dille, NCWSS President

To all NCWSS members:

Our third "Women in Weed Science" networking breakfast will be on Wednesday, December 14, 2016 from 6:30 to 8:00 am in the Cedar Rapids room at the 2016 NCWSS meeting in Des Moines, IA. All female attendees, including graduate and undergraduate students, spouses, and all academic and industry professionals, are invited to participate in this networking opportunity. Our guest this year is Marji Alaniz, Founder and President of FarmHer, Inc. FarmHer was founded in 2013 to begin to change the image of agriculture - to include women in that image through photographs and stories. Check out the website: FarmHer.com. When you register for the annual meeting, please check the box to indicate that will join us for the Networking Breakfast. We'll have a seat and food (no charge) waiting for you.

Anita Dille, NCWSS President



Washington Report Lee Van Wychen Fall 2016



New Rapid Response Ag Research Funds Available from FFAR

On September 25, the Foundation for Food and Agriculture Research (FFAR) opened the Rapid Outcomes from Agricultural Research (ROAR) program, making available up to \$150,000 to accelerate initial research and outreach response to combat new pest outbreaks by pre-establishing teams of experts, agreements, and funding sources. The \$150,000 is the maximum per one-year grant and requires matching funding.

ROAR is structured around commodity consortia. To establish a consortium, interested groups are invited to self-organize or take advantage of preexisting consortia of researchers, extension agents, institutions, commodity and industry representatives, diagnostic laboratories, and relevant state and local representatives.

In the event of a new or emerging agricultural pest outbreak, a given consortium will submit a proposal for rapid research and extension response. FFAR will render decisions to fund or not fund a proposal based upon qualifying criteria, including but not limited to:

- The outbreak has regional and/or national implications.
- The outbreak is acute in nature and has substantial economic implications for a commodity.

The program will contribute to practical solutions that producers can implement in the field.

For more information, please visit: <u>www.foundationfar.org/ROAR/</u>

Palmer Amaranth Detected in Minnesota

On September 22, a Palmer amaranth plant was detected in a native seed planting plot on a Yellow Medicine County farm. This is the first confirmation of the weed in the state. University of Minnesota weed scientists and officials at the Minnesota Department of Agriculture urged farmers to check fields for Palmer amaranth. Minnesota added Palmer amaranth to their state's "prohibitederadicated noxious weed" list in 2015, requiring all above- and below-ground parts of the plant be destroyed. Transportation, propagation or sale of the plants is prohibited. More information can be found at: <u>http://blog-crop-</u>

news.extension.umn.edu/2016/09/palmeramaranth-in-mn-reporting.html

<u>Federal Government Funded on CR Until</u> <u>Dec. 9.</u>

A day before FY 2016 government funding expired on September 29, Congress passed a continuing resolution (CR), H.R. 5325 that extends government funding FY 2016 levels until Dec. 9,

when lawmakers are expected to be in Washington for a lame-duck session after the election. The CR was cleared by the House on a 342-85 vote and earlier in the day was passed by the Senate, 72-26. The legislation includes \$1.1 billion in Zika response funding, \$500 million for flood relief in Louisiana and other states and fiscal 2017 appropriations for military construction and veterans. The initial conference report back in July contained language that would have provided mosquito sprayers, including vector control districts, a 180 day waiver from NPDES permit requirements for applying FIFRA approved insecticides near waters of the United States. Unfortunately, that language was eventually removed due to the objections from a handful of misinformed Senators and **Representatives.**

Weed Science Societies Comment on EPA's Draft Guidance for Herbicide Resistance Management Labeling and Stewardship

This summer EPA issued a Pesticide Registration Notice (PRN) that proposes an approach to address herbicide-resistant weeds by providing guidance on labeling, education, training, and stewardship for herbicides undergoing registration review or registration. The National and Regional Weed Science Societies recognize the critical need to protect all available weed management tools and are on record supporting proactive measures by EPA to combat the further evolution and spread of herbicide-resistant weeds. EPA's proposal represents a significant change in how resistance is monitored, mitigated and communicated to weed management stakeholders. We consider this proposal a first iteration that will need adaptation and evolution as our experience with it grows and we hope the Agency has those same expectations. Our comments are at: http://wssa.net/wp-content/ uploads/Natl-Regl-Weed-Sci-Comments-on-EPA-PRN-2016-XX.pdf

EPA is evaluating the public comments and expects to finalize their draft guidance in late 2016. The herbicide resistance management guidance will be implemented for existing herbicides during registration review and for new herbicides and new uses of existing herbicides at the time of registration.

EPA says Glyphosate "Not Likely to be Carcinogenic to Humans"

In September, EPA officially released its cancer review assessment and background paper on glyphosate along with more than 100 other documents. WSSA fully supports EPA's Cancer Assessment Review Committee's (CARC) report on

glyphosate (<u>https://www.regulations.gov/</u> document2D=EPA-HO-OPP-2016-0285-0014

document?D=EPA-HQ-OPP-2016-0385-0014) and appreciates the scientific rigor and thoroughness of the CARC's review of all available epidemiology and carcinogenicity studies. WSSA agrees with the CARC's assessment that the few studies that the International Agency for Research on Cancer (IARC) selectively chose for its glyphosate review suffered from small sample sizes of cancer cases related to glyphosate exposure and had risk/odds ratios with large data variance beyond acceptable limits. Furthermore, WSSA feels that the IARC review process for glyphosate was flawed and represents a case of gross scientific negligence. There is no question that IARC arrived at their conclusion due to their inclusion of the positive findings from a selection of studies with known limitations, a lack of reproducible positive findings, and the omission of the negative findings from credible and reliable research.

A FIFRA Scientific Advisory Panel (SAP) was scheduled to be held October 18-21 to review the CARC report and other supporting documents. However, a few days before the meeting, EPA issued a notice saying it was postponed "due to recent changes in the availability of experts for the peer review panel." As it turned out, CropLife America showed that one of the SAP members, Dr. Peter Infante, demonstrated repeated bias in statements about pesticides and pesticide studies and cited a ruling in which a federal district court disqualified his testimony.

Written comments for the FIFRA SAP meeting were due October 4 in order to give panel members a couple weeks to read them. In addition to the comments above, WSSA also submitted information they developed for a Fact Sheet titled "Dispelling Common Misconceptions about Superweeds" and a press release titled "WSSA Scientists Say Herbicide Resistance Predates Genetically Engineered Crops by 40 Years." Those comments are at: <u>http:// wssa.net/wp-content/uploads/WSSA-comments-to</u> <u>-FIFRA-SAP-on-glyphosate.pdf</u>

WSSA Comments on Triazine Draft Ecological Risk Assessment

A number of concerns have been raised by various stakeholders relative to EPA's draft ecological risk assessment for the triazines. These concerns include: errors in endpoint data and the water monitoring database; use of models that are not validated with field data; estimates of inflated hypothetical risks (e.g. atrazine applications resulting in 36% bird mortality) that have not been observed in over 55 years of atrazine use; use of data or findings not conducted in accordance with EPA's scientific guidelines required under FIFRA; and ignoring

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the advice and findings of previous Scientific Advisory Panels on atrazine. The WSSA stresses the importance of addressing these concerns in order to maintain stakeholder confidence in the Agency's science-based regulatory framework. However, our main concern, based on the current ecological draft risk assessment, is that atrazine and simazine would be restricted to less than 0.25 lbs a.i./A and 0.5 lbs a.i./A, respectively. At these low rates, atrazine and simazine would not provide efficacious weed control. In addition, using sub-lethal rates of atrazine or simazine is not an effective option for resistance management as it has been shown that this practice is likely to result in weeds with multiple-site or polygenic resistance which would make it more difficult to control these weeds. WSSA's comments are at: http://wssa.net/wpcontent/uploads/WSSA-Comments-on-Triazine-Ecological-Risk-Assessment.pdf

<u>EPA Manual Available on How to Comply</u> <u>with the Revised Worker Protection</u> <u>Standards</u>

The EPA in conjunction with the <u>Pesticide</u> <u>Educational Resources Collaborative (PERC)</u> has made available a guide to help users of agricultural pesticides comply with the requirements of the 2015 revised federal Worker Protection Standard (WPS). You should read this manual if you employ agricultural workers or handlers, are involved in the production of agricultural plants as an owner/ manager of an agricultural establishment or a commercial (for-hire) pesticide handling establishment, or work as a crop advisor. The "How to Comply" manual includes:

details to help you determine if the WPS requirements apply to you;

- information on how to comply with the WPS requirements, including exceptions, restrictions, exemptions, options, and examples;
- "Quick Reference Guide"- a list of the basic requirements (excluding exemptions, exceptions, etc.);
- new or revised definitions that may affect your WPS responsibilities; and explanations to help you better understand the WPS requirements and how they may apply to you.

The revised EPA Pesticide Worker Protection Standard "How to Comply" Manual is available at: <u>https://www.epa.gov/pesticide-worker-safety/</u> <u>pesticide-worker-protection-standard-how-comply-manual</u>

MIT Researchers Find New Way to Make <u>Pesticides Stick to Leaves 10 Times Better?</u> Massachusetts Institute of Technology. "Making pesticide droplets less bouncy could cut agricultural runoff: Researchers find a way to make pesticides stick to leaves instead of bouncing off."

ScienceDaily, 30 Aug 2016. www.sciencedaily.com/ releases/2016/08/160830121724.htm

By using a clever combination of two inexpensive polymer additives, called polyelectrolytes, MIT researchers found they could drastically cut down on the amount of liquid that bounces off plants. The new approach uses two different kinds of additives. The spray is divided into two portions, each receiving a different polymer substance. One gives the solution a negative electric charge; the other causes a positive charge. When two of the oppositely-charged droplets meet on a leaf surface, they form a hydrophilic (water attracting) "defect" that sticks to the surface and increases the retention of further droplets.

Based on the laboratory tests, the team estimates that the new system could allow farmers to get the same effects by using only 1/10 as much of the pesticide or other spray. And the polymer additives themselves are natural and biodegradable, so will not contribute to the runoff pollution.

Journal Reference: Maher Damak, Seyed Reza Mahmoudi, Md Nasim Hyder, Kripa K. Varanasi. Enhancing droplet deposition through in-situ precipitation. *Nature Communications*, 2016; 7: 12560 DOI: <u>10.1038/</u> <u>ncomms12560</u>

Abstract: Retention of agricultural sprays on plant surfaces is an important challenge. Bouncing of sprayed pesticide droplets from leaves is a major source of soil and groundwater pollution and pesticide overuse. Here we report a method to increase droplet deposition through in-situ formation of hydrophilic surface defects that can arrest droplets during impact. Defects are created by simultaneously spraying oppositely charged polyelectrolytes that induce surface precipitation when two droplets come into contact. Using highspeed imaging, we study the coupled dynamics of drop impact and surface precipitate formation. We develop a physical model to estimate the energy dissipation by the defects and predict the transition from bouncing to sticking. We demonstrate macroscopic enhancements in spray retention and surface coverage for natural and synthetic nonwetting surfaces and provide insights into designing effective agricultural sprays.

<u>Politicization of the Waters of the United</u> <u>States Rulemaking</u>

On October 27, the House Oversight and Government Reform Committee released a report detailing findings from its investigation into the Waters of the United States (WOTUS) rulemaking process. The critical report shows how pressure from the White House and the EPA led to a rulemaking that is legally and scientifically insupportable. The report is available at: https://oversight.house.gov/wp-content/ uploads/2016/10/WOTUS-OGR-Report-final-forrelease-1814-Logo-1.pdf

Key findings from the report include:

- The agencies pushed the rule through on an accelerated timeline that appeared to have been motivated by political considerations. Some officials involved in the process believed politics deprived them the opportunity to conduct a meaningful and full review of the rule before its promulgation.
- The U.S. Army Corps of Engineers, which shares jurisdiction over the Clean Water Act, was cut out of the rule development process.
- The EPA made no effort to ensure the rule was based on sound science. The EPA did not conduct additional research (which the Corps believed was necessary) to justify the rule's conclusions.
- The agencies did not consider alternatives to the rule, and even went so far as to gut the discussion of alternatives after the Office of Information and Regulatory Affairs stated such discussion was necessary.
- The agencies went to unusual and unprecedented lengths to avoid compliance with the National Environmental Protection Act, the Regulatory Flexibility Act, and Small Business Regulatory Enforcement Fairness Act.
- Public comments were not fully reviewed and considered before agencies drafted the final rule.

After the WOTUS rule took effect in August 2015, many stakeholder groups challenged the ruled in federal courts as a violation of statutory and constitutional law. The 6th Circuit Court of Appeals issued a stay of the WOTUS rule, delaying its implementation pending further action by the Court. Opening briefs to the 6th Circuit Court are due Nov. 1, 2016.

NISC Adopts New Management Plan

The National Invasive Species Council (NISC) announced the release of their 2016-2018 Management Plan. The plan sets forth high priority, interdepartmental actions for the Federal government and its partners to take to prevent, eradicate, and control invasive species, as well as restore ecosystems and other assets adversely impacted by invasive species. The thirteen Federal Departments and Agencies whose senior officials comprise NISC will:

- Provide Federal leadership on invasive species issues by establishing the structures, policy, and planning priorities necessary to enable Federal agencies to effectively prevent, eradicate, and/or control invasive species, as well as restore impacted ecosystems and other assets;
- Limit the spread and impact of invasive species through high-level policy and planning by strengthening coordination between the United States and other governments, across the Federal government, and between the Federal government and non-governmental stakeholders;
- Raise awareness of the invasive species issue and mobilize the policies, programs, and financial resources necessary to minimize the spread and impact of invasive species;
- Remove institutional and policy barriers to the Federal actions needed to prevent, eradicate, and control invasive species, as well as restore ecosystems and other assets;
- Conduct assessments of Federal capacities to meet the duties set forth in Executive Order 13112, as well as other high-level policy priorities, and build Federal capacities, as needed;
- Foster the scientific, technical, and programmatic innovation necessary to enable Federal agencies and their partners to prevent and mitigate the impacts of invasive species in a timely and cost-effective manner with negligible impacts to human and environmental health.

The 2016-2018 NISC Management Plan is available at: <u>https://www.doi.gov/sites/doi.gov/</u> <u>files/uploads/2016-2018-nisc-management-</u> plan.pdf

FHWA Updates Roadside Revegetation Handbook with Emphasis on Pollinators

In its first major update since 2007, the Federal Highways Administration (FHWA) has expanded their roadside revegetation manual to include a major emphasis on pollinators. The handbook is now titled "Roadside Revegetation: An Integrated Approach to Establishing Native Plants and Pollinator Habitat". With at least 17 million acres of roadsides in the U.S., roadside vegetation can serve as much needed habitat for pollinators, offering food, breeding, or nesting opportunities and connectivity that can aid pollinator dispersal. Roadside vegetation management influences how pollinators use roadsides, and even influences the number of pollinators killed by vehicles. For example, butterfly vehicle mortality rates increase with more frequent mowing and decrease with high plant diversity in roadside vegetation.

The publication is written specifically for the "designer," those individuals or members of a road design team who will be directly involved in planning, implementing, monitoring, or maintaining a revegetation project. The first draft was released in September 2016 and is available at: <u>http://www.nativerevegetation.org/pdf/</u><u>RoadsideReveg_PollinatorHabitat_DRAFTv1-1_sept2016.pdf</u>

ASA, CSSA and SSSA Congressional Science Fellowship

Applications are now being accepted for the 2018 ASA, CSSA and SSSA Congressional Science Fellowship. Use your scientific knowledge working for a member of Congress in this year-long Fellowship in Washington, DC. Applicants must have exceptional competence in their field of study, be cognizant of a broad range of matters outside the Fellow's particular area, and have a strong interest in working on a range of public policy issues. Must be a member of ASA, CSSA and/or SSSA and have completed or are approaching completion of their PhD in agronomy, crop science, soil science or related field. The 2018 Fellowship can begin anytime from September 2017 to January 2018; the exact date is flexible and open to negotiation. Application deadline, January 13, 2017. https://www.agronomy.org/science-policy/fellowship/application

People and Places

Congratulations Rodrigo

In May 2016 Rodrigo Werle earned his Ph.D. from the University of Nebraska-Lincoln. His major advisor was Dr. John Lindquist. Dr. Rodrigo started his new position as an Assistant Professor/Cropping Systems Specialist at the UNL West Central Research and Extension Center, located in North Platte, NE. His appointment consists of 50% Research and 50% Extension. He is excited to continuing contributing to the NCWSS. Office: 308-696-6712 Email: rodrigo.werle@unl.edu Twitter: @UNLCroppingSyst



Congrats Rodrigo!

Position Available:

Assistant Professor–Cropping Systems Weed Scientist with University of Wisconsin-Madison, Department of Agronomy in Madison, WI

The Department of Agronomy at the University of Wisconsin-Madison invites applications for a 12-month tenure-track Faculty position as a Cropping Systems Weed Scientist. This Faculty position at the Assistant Professor level carries a commitment to the important functions of Extension, research, and professional and university service as appropriate to faculty rank. See more info at: <u>http://wssa.net/2016/09/assistant</u>-professorcropping-systems-weed-scientist-with-university-of-wisconsinmadison-department-of-agronomy-in-madison-wi/



The 2016 North Central weed science society weed contest was hosted by Purdue University on July 28. There were 25 teams which included 16 graduate teams and nine undergraduate teams for a total of 97 individuals. The hosts congratulates ALL competitors, and greatly appreciated the many contest volunteers!

Team Awards:

Graduate Team	Undergraduate Team
1 st Place – Kansas State University team 1	1 st Place – Iowa State University
Marshall Hay	Lucas Roberts
Chelsea Alquist	Nick Upah
Eric VanLoenen	Lauren Schwarck
Garrison Gundy	Brittany Kirsch
2 nd Place – University of Nebraska team 1	2 nd Place – Kansas State University
Josh Miller	Sarah Zerger
Zahoor Ganie	Jessica Bramhall
Matthew Nelson	Jesse Gilmore
Spencer Samuelson	Nicole Sudbeck
3 rd Place – University of Nebraska team 2	3 rd Place – University of Nebraska
Parminder Chahal	Jose Henrique deSanctis
Bruno Canella Vieira	Ryan Langenmeier
Maxwell Oliveira	Rodger Farr
Don Treptow	Felipe Faleco

Individual awards:

Graduate Division	Undergraduate Division
Overall Graduate Individual	Overall Undergraduate Individual
1 st place – Marshall Hay, Kansas State	1 st place – Lucas Roberts, Iowa State University
2 nd place tie – Chelsea Alquist, Kansas State and	2 nd place – Eric Oseland, University of Missouri
Devin Hammer, University of Wisconsin	3 rd place – Nicole Sudbeck, Kansas State University
3 rd place - Junjun Ou, Kansas State University	
Written Calibration –	Written Calibration -
Chelsea Alquist, Kansas State University	Connor Sible, University of Illinois
Unknown Herbicide Identification –	Unknown Herbicide Identification –
Devin Hammer, University of Wisconsin	Ryan Langemeier, University of Nebraska
Farmer Problem –	Farmer Problem –
Marshall Hay, Kansas State University	Drake Gleeson, University of Missouri
Team Calibration – Kansas State University	Team Calibration – Kansas State University
Marshall Hay	Sarah Zerger
Chelsea Alquist	Jessica Bramhall
Eric VanLoenen	Jessie Gilmore
Garrison Grundy	Nicole Sudbeck





1st Graduate Team Kansas State University 1st Team Calibration



2nd Graduate Team

University of Nebraska



3rd Graduate Team

University of Nebraska

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1St Undergraduate Team

Iowa State University



2nd Undergraduate Team

Kansas State University 1St Team Calibration

3rd Undergraduate Team

University of Nebraska





1St Individual Grad Student Marshall Hay KSU

2nd (a TIE) Individual Grad Student Devin Hammer (left UW-Madison) Chelsa Alquist (right KSU)



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3rd Individual Grad Student Junjun Ou Kansas State

1st Individual Undergrad Student Lucas Roberts Iowa State





2nd Individual Undergrad Student Eric Oseland Univ. Missouri

3rd Individual Undergrad Student Nicole Sudbeck Kansas State





Written Calibration

Grad: Chelsea Alquist (KSU)

> UG: Connor Sible (UofI)





Unknown Herbicide

Grad: Devin Hammer (UW-Madison)

UG: Ryan Langemeier (Univ. Nebraska)



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Weed ID

Grad: Chelsea Alquist (KSU)

> UG: Lucas Roberts (ISU)





Farmer Problem

Grad: Marshall Hay (KSU)

> UG: Drake Gleeson (Univ Missouri)

