The 71st Annual Meeting of the NEWSS is less than two months away! The meeting will be held January 3-6, 2017 at the Sheraton Society Hill in Philadelphia, PA. This conference also marks the first consecutive meeting of the Northeastern Plant, Pest, and Soils Conference (NEPPSC). The NEPPSC was spearheaded by the NEWSS executive board under the leadership of Past President Greg Armel. Greg, passed the gavel to Rakesh Chandran in 2015. Rakesh was tasked with turning all of the tedious planning over the past few years into reality. A planning committee comprised of representatives of the five inaugural societies was formed and the NEPPSC was born. My task during this era was creating the program with input from other committee members. As program chair, I was able to interact with almost everyone and I gained valuable insight on the meeting's successes and failures. Rakesh was a true leader during the inaugural year and much of the NEPPSC's success is owed to him. Now in 2017, it is my job not to "screw it up." The NEWSS really has created something amazing with NEPPSC. I believe it will grow to be a leading conference in our respective disciplines within the next decade. In 2017, we will meet jointly with the American Society of Horticulture - Northeast Region and the Northeast Branch.
of the ASSA-CSSA-SSSA. Plans are already underway for other societies to join in future years.

Please see the Vice President and President Elect’s articles for more details about the program, meeting theme, and symposia. I encourage each of you to join us in Philadelphia this January and to get involved. Tell your colleagues about NEPPSC. The goal of this conference is to be more than a weeds meeting. The future of NEPPSC will be shaped by those who are involved in its planning and we invite representatives from all affiliated societies to participate in that planning. I'm proud the NEWSS is steering this ship and I call on our members to continue to step up and provide the needed leadership to keep the ship moving. Your Executive Committee has done an outstanding job getting things ready for your arrival at our meeting in January. I have been honored to be able to serve as your President the last year. I look forward to seeing everyone in Philadelphia in January!

**Past President’s Report**

Rakesh Chandran

Dan Kunkel has graciously agreed to serve as Vice-President of NEWSS beginning in January. Please find his biography below.

Daniel Kunkel, Ph.D.

**Associate Director, Food and International Programs**

**IR-4 Project Headquarters, Rutgers, The State University of NJ**

Dan was born and raised on a farm in central Illinois. He earned his Ph.D. from Cornell University in 1992 in fruit and vegetable Science and a Master’s Degree from Southern Illinois University in 1987. Dan has been the Associate Director for Food and International Programs since September of 2009 and has been with the IR-4 Program for more than 25 years.

Dan provides overall management of the IR-4 Food Program, which develops regulatory data to provide safe and effective pest management solutions to specialty crop growers and for other minor uses. He also manages the IR-4 International program where he coordinates IR-4 data submission to Codex (JMPR) and other international authorities to support US trade. Dan serves as a US delegation member for the NAFTA Technical Working group on Pesticides, CODEX Committee on Pesticide Residues and with OECD as a member of the Expert Working Group on Minor Uses. He served as the Program Chair for the Second Global Minor Use Summit, in 2012 and now serves on the planning committee for the first Global Minor Use Priority Setting Workshop and in 2016, and was awarded with the IUPAC International Award for Advances in
Harmonized Approaches to Crop Protection Chemistry.

His service to the NEWSS includes; various committees, Poster Judging, Section Chair, and Served on the Board of Directors from 2003 to 2008, and again from 2016 to present and last but not least he has served as the society archivist for many years. His service to WSSA includes several committees (Legislative, Herbicides for Minor Crops) Horticulture crops Section Chair, Graduate student poster judge 2015 (inaugural year) to present and served on the board of Directors (member at large) from 2012-2016.

He also serves on the American Vegetable Grower Magazine, Editorial Advisory Board, US EPA Pesticide Program Dialogue Committee, and the Crop Life America Registration Committee. He has more than 20 Journal/magazine publications, over 130 abstracts, over 60 pesticide petition submissions to the US Environmental Protection agency and has various newsletter articles.

Treasurer’s Report

Erin Hitchner

Welcome 2017 Northeastern Weed Science Society members to the second Northeastern Plant, Pest, and Soil Conference (NEPPSC). For the meeting there is a Regular Registration ($225), One Day Registration ($100), Symposium Only Registration ($50) as well as Student Registration ($50) available for purchase. Members also have the option to bring a guest for an additional $25. Please note that NEWSS membership dues are included with your meeting registration fee, so there is no need to pay dues separately. Also, as in years past, we will continue using PayPal to facilitate our online meeting registration fees. You can use a PayPal account to make this purchase or any major credit card. To access meeting registration as well as other relevant meeting information, please visit the NEWSS website (http://www.newss.org/index.php). If you prefer to mail-in your registration, please send me a note at the e-mail address listed below and I will provide the necessary forms to complete registration via this route.

For questions, please contact erin.hitchner@syngenta.com

NORTHEASTERN WEED SCIENCE SOCIETY

Erin Hitchner
Hotel/Meeting Information


Book before December 14, 2016 to take advantage of the group room rate.

Register for the meeting by December 15, 2016 to avoid a $30.00 late fee at [www.newss.org](http://www.newss.org).

SHERATON SOCIETY HILL
1 DOCK STREET
(2ND & WALNUT STREETS)
PHILADELPHIA, PA

Philadelphia International Airport
Take Interstate 95 North to Exit 20 (Columbus Boulevard). Turn left at the traffic light onto Columbus. Turn left turn at the sixth light, for Dock Street. Turn right at the stop sign. The hotel is on the right-hand side.

Amtrak
Station Building 2955 Market Street 30th Street Station Philadelphia, PA 19104.

Greyhound
1001 Filbert St Philadelphia, PA 19107 * Several popular Chinatown bus routes also connect Philadelphia with Boston, New York and Washington, D.C. for extremely wallet-friendly prices. (Not associated with Greyhound.)

From East
Take Ben Franklin Bridge from Camden, stay in the right lane. Take the first right off of bridge to Sixth Street then follow Sixth Street to Market Street and turn left. Follow Market to Second Street and turn right. Follow Second Street to Dock Street and the hotel is on the left.

From North
Take Interstate 95 South to Exit 20 (Columbus Boulevard). At the bottom of the ramp, turn left onto Columbus Boulevard. Follow for 3 traffic lights to Dock Street and turn left. Continue to a dead end and turn right. The hotel will be on the right.

From West
Take Pennsylvania Turnpike to 76 East (Exit 326 - Valley Forge). Follow 76 East to 676 East (Exit 344 - Central Philadelphia). Continue on 676 East to Interstate 95 South. Take I-95 South to Penn's Landing (Exit 20). At the bottom of the ramp, turn left onto Columbus Boulevard. Follow to Dock Street and turn left. Continue to the dead end and turn right. The hotel is on the right.
 Executive Committee

NEWSS Executive Committee 2016
Front Row (L to R): Sudeep Mathew, Erin Hitchner, Randy Prostak, Shawn Askew, Rakesh Chandran, Carroll Mosley, Kurt Vollmer
Back Row (L to R): Katelyn Venner, Michael Flessner, Prasanta Bhowmik, Wesley Everman, Quentin Johnson, Dan Kunkel, John Brewer
Not Pictured: Lee Van Wychen

Shawn Askew  President
Randy Prostak  President-Elect
Carroll Mosley  Vice-President
Rakesh Chandran  Past President
Erin Hitchner  Treasurer
Kurt Vollmer  Treasurer-Elect
Sudeep Mathew  Membership Chair
Michael Flessner  Editor
Katelyn Venner  Public Relations Rep.
Wesley Everman  Sustaining Membership
Quentin Johnson  Research & Education
John Brewer  Graduate Student Rep.
Prasanta Bhowmik  WSSA Representative
Dan Kunkel  CAST Representative
Lee Van Wychen  Science Policy Director
NEWSS Executive Committee 2016

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Committee Members

Listed below are the Chairs and Chair-Elects for the various sections in 2016.

2017 NEWSS Annual Meeting
Randy Prostak – Program Chair

Poster Session:
Michael Flessner – Chair

Agronomy:
John Willis – Chair

Ornamentals:
Sali Barolli – Chair

Turfgrass and Plant Growth Regulators:
Alan Estes – Chair
Kyung-min Han – Chair-Elect

Vegetables and Fruit:
Katherine Ghantous – Chair

Vegetation Management and Restoration:
Brett Hartis – Chair

Weed Biology and Ecology:
Caroline Marschner – Chair

Program Committees for the 2017 NEWSS Meeting

Site Selection Committee
Randy Prostak President-Elect
Shawn Askew President
Erin Hitchner Treasurer
Sudeep Mathew Membership Chair

Awards Committee
Rakesh Chandran Chair
Greg Armel
Dwight Lingenfelter
Antonio DiTommaso
Mark VanGessel

Nomination Committee
Rakesh Chandran Chair
Brian McDonnell Selected at business mtg.
Carrie Mansue Selected at business mtg.

Resolutions Committee
Charlie Cahoon Chair
Brian McDonnell Appointed by President
Joseph Reed Appointed by President

Collegiate Weed Contest Committee
Shawn Askew Chair
Jacob Barney Current Host
Dwight Lingenfelter Host in 2014
John Grande Host in 2012
Greg Armel Host in 2011
Antonio DiTommaso Host in 2010
John Brewer Graduate Student Rep.
Wes Everman Mentor

Audit Committee
Erin Hitchner Treasurer
Kurt Vollmer Treasurer-Elect

Archives Committee
Dan Kunkel Chair
Rakesh Chandran Past-President

Photo Award Committee
Javier Vargas Chair
Erin Hitchner
Rakesh Chandran
Art Gover
Victoria Kleczewski
Hilary Sandler

Student Paper Awards Committee
Greg Armel Chair
Dwight Lingenfelter
Antonio DiTommaso
Mark VanGessel
Rakesh Chandran

Weed Science Field Days Committee
Bryan Dillehay Research and Education
Quintin Johnson Appointed by President

Poster Award Committee
Darren Lycan Chair
NEWSS News was compiled by Katelyn Venner, Public Relations Representative. Please contact her at katelyn.venner@basf.com with any corrections, suggestions, or items to be included in the next newsletter (Spring 2017).

Editor’s Report

Abstracts are due Tuesday, November 29, 2016 for the annual meeting. Submit via www.wssaabstracts.com. Instructions for submission can be found on http://www.newss.org/annualmeeting.php.

When writing the abstract, please follow formatting guidelines, which can be found at: http://www.newss.org/docs/2017_Author_Instructions.pdf. Please limit abstracts to one page. When entering the abstract text in wssaabstracts.com, there is a field for you to compose or paste your abstract text. DO NOT ENTER THE TITLE or Authors into this field. Remember to save prior to exiting the window. Your cooperation and attention to detail are greatly appreciated.
I hope your fall semester and research is going well. I would like to remind you all that the 2017 NEPPSC meeting will again be in Philadelphia, Pennsylvania on January 3-6. Once again it will be a great meeting to attend to help you connect with other students, professors, and industry representatives. The title submission date was on November 1st, and I hope you all were able to get yours uploaded in time. The next important date for the meeting will be on November 25th, which will be the abstract submission date. Also hotel room reservations are due by December 14th (Sheraton Society Hill - 1 Dock St., Philadelphia, PA), so please begin talking with your advisor to get rooms reserved. If you are a new graduate student going to the NEPPSC than you should know all talk and poster information will be uploaded to the WSSA abstract submission site and you can register for the meeting by going to www.newss.org. The meeting will be smaller than last years since we will not be hosting all five societies we had in attendance last year. There are only three attending this year including us (NEWSS), the northeastern branch of horticulture (ASHS), and the agronomy society (ASA/CSSA/SSSA). Even with a lower number of attendees, the meeting will still be a great event, so please attend the meeting in January.

We will not be having another quiz bowl this year. Since we need to elect a new NEWSS Graduate Student Representative, there will be a graduate student luncheon at noon on Wednesday, January 4th. I am not sure exactly what room it will be held in this year, but be looking for that information once the program is released to you. It should be a wonderful luncheon as one of the possible topics for the meal will be a presentation on the appropriate ways to present your research to the public eye or non-scientific crowds. At the end of the luncheon, we will be nominating and electing the new graduate student representative, which is a 2-year term on the executive board. This position gives you a great opportunity to meet and network with the executive board members. Please do not ask to be nominated if you are unable to serve two consecutive years.

I hope to see you all in January.
“Precision Agriculture and Weed Science,” “Contributions of USDA-ARS Area-wide Projects in Weed Science Research and Practices,” and “Understanding and Reducing the Impact of Herbicide Off-Site Movement: Advancements to Reduce Drift and Considerations for Herbicide Synergy.” In addition to these symposia, there will also be one workshop on “Teaching Undergraduate Weed Science: Strategies to Improve Learning” and one special session, “Navigating the New Landscape of Federal Funding for Weed Science Research.” The graduate students have also organized a workshop entitled “Utilizing Online Resources for the Development of a Professional Web Presence” which should be of interest to all the students attending the conference.

All student contest presentations, regular posters and oral presentations and symposia presentations have been submitted via the WSSA abstract submission system. Abstract text must be submitted by January 16, 2017.

WSSA Registration Information
Take advantage of Early Bird registration with $400 (before Dec 9); $500 (Dec 10 to Jan 6) and Jan 7 and after: $600 for WSSA member. Student member registration is $125 (any time). For complete registration information, visit Meeting page: http://wssa.net/meeting/2017-meeting/

Hotel Information: The discounted meeting rate at Hilton Tucson El Conquistador will be available through Tuesday, January 3, 2017. The group rate for a standard guest bedroom is $179 per night plus tax, available 3 days prior and 3 days after the event dates of February 6-9, 2017, subject to availability. Be sure to mention “WSSA” in order to get the discounted rate. Check-in time at the Hilton is 4 p.m. with check-out at 11 a.m. Online hotel reservation or Booking by phone: 800-325-7832; onsite reservation: 520-544-5085

Airport Shuttle Reservation: Due to the distance from the Tucson International Airport to the Hilton El Conquistador, the Hilton has agreed to provide transportation services to/from the property from the airport at no cost to the attendees. You will need to make advance reservations for your arrival/departure by having your flight arrival/departure information available when making your reservation. The shuttle is available from 2/3/2016 through 2/10/2016. Click here to make a reservation.

2017 Graduate Students Oral Papers Contest: 2017 will be the first year for a student oral presentation contest in addition to the student poster presentation contest. Abstract text for oral presentations and posters must be submitted by January 16, 2017.

WSSA Journals moving to Cambridge University Press (CUP): The CUP will publish the WSSA journals starting January 1, 2017. Weed Science, Weed Technology, and Invasive Plant Science and Management will be managed and marketed by a team based in the CUP New York office. In 2017, all our three journals will be online publication by CUP, and there will be no PRINT COPY.

The first 2017 First View paper for Weed Science has just been published at https://www.cambridge.org/core/journals/weed-science/first-view. All 2016 published articles and older journal content will be maintained by Allen Press until the end of December. To access this content, go to wssa.net, click on "Member Access" under "WSSA Journals" in the grey menu bar on the left, and log in as a WSSA member.

The WSSA Herbicide Resistance Education Committee is planning to hold several workshops at regional level. The workshops will reflect the diversity of herbicide resistance challenges, commodities, and other differences between areas or regions. The committee feels that the workshops will lead to discussions with diversity of thoughts in herbicide resistance and management. The committee is reaching out to regional weed science societies for their cooperation and ideas. Our NEWSS members, Bill Curran and Mark Van Gessel will participate in the process.
Federal Funding and Grants Opportunities:
Weed Science Funding: USDA-NIFA has developed a web site for archiving all relevant funding opportunities within USDA for Weed Science researchers. For more detailed information, visit Weed Science Funding page.

Visit the following web sites for specific funding opportunities:

**FY 2017 USDA Grant and Partnership Programs that can Address Invasive Species Research, Technical Assistance, Prevention and Control**

USDA-NIFA-Organic Agriculture Research and Extension Initiative (OREI) (due: Jan 19, 2017). For questions, contact Mathieu Ngouajio (mngouajio@nifa.usda.gov)

NSF-Partnerships for International Research and Education (PIRE) (Full proposal due: Apr 24, 2017; Preliminary proposal due: Sep 14, 2016)

For any questions on USDA grants, contact Dr. Rob Hedberg (rhedberg@nifa.usda.gov).

2018 Annual Meeting of the Weed Science Society of America is set for January 25 to February 3 in Arlington, VA at the Crystal Gateway Marriott.

**Director of Science Policy Report**

Lee Van Wychen

**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 pre-existing 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: www.foundationfar.org/ROAR/


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 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 (https://www.regulations.gov/document?D=EP A-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: http://wssa.net/wp-content/uploads/WSSA-comments-to-FIFRA-SAP-on-glyphosate.pdf

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 the advice and findings of previous Scientific Advisory Panels on atrazine. For instance, EPA could have used a huge database monitoring atrazine use in the Midwest, but in many cases, they used a model rather than an actual database to predict what might be in the environment for 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. In 2018, atrazine is up for re-registration by EPA. WSSA’s comments on the draft ecological risk assessment are at: http://wssa.net/wp-content/uploads/WSSA-Comments-on-Triazine-Ecological-Risk-Assessment.pdf

EPA Manual Available on How to Comply with the Revised Worker Protection Standards

The EPA in conjunction with the Pesticide Educational Resources Collaborative (PERC) 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.


MIT Researchers Find New Way to Make Pesticides Stick to Leaves 10 Times Better?


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.


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 high-speed 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 non-wetting surfaces and provide insights into designing effective agricultural sprays.

Politicization of the Waters of the United States Rulemaking

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-for-release-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 rule in federal courts as a violation of statutory and constitutional law. In October 2015, the 6th Circuit Court of Appeals issued a stay of the WOTUS rule, delaying its implementation pending further action by the Court. On November 1, 2016, opening briefs to the 6th Circuit Court were filed by 31 states, plus various organizations and companies opposed to the expanded federal jurisdiction over streams and wetlands. The WOTUS rule, challengers argue in their briefs, undermines state authority. Challengers take particular issue with what they say is the federal government’s disregard for whether a body of water is considered “navigable,” which they say should be key in determining where it can regulate.

“The plain terms of the Clean Water Act do not permit the agencies to sweep in local, isolated waters and land features, which have only a tangential relationship to navigable-in-

fact waters,” petitioners said. “The rule reaches far beyond Congress’ authority to protect in-fact navigable waters; that is, those waters that can be used as channels of interstate commerce.”

The EPA and the Army Corps of Engineers have until Jan. 18 to file their response to the challengers in court. A 6th Circuit Court hearing is unlikely to occur before April 2017.

**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.


**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: http://www.nativerevegetation.org/pdf/RoadsideReveg_PollinatorHabitat_DRAFTv1-1_sept2016.pdf

**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

**CAST Representative Update**

Dan Kunkel

The Council for Agricultural Science and Technology (CAST) is a nonprofit organization composed of scientific and professional societies, companies, nonprofits, and individual members. Together we communicate the science behind food and agricultural issues with input from the scientific and legal community, as
well as summarize the latest scientific research for leaders in public policy, the private sector, and the media. To support this work, consider becoming a CAST member today!

CAST’s website (www.cast-science.org) provides access to publication downloads, videos featuring Task Force authors, news and more.

- **Ag quickCASTs** are 1-page versions of full-length publications.
- **Friday Notes**, CAST’s weekly e-newsletter for members, contains articles on current topics, congressional updates, and links to more than 60 current agricultural news items selected from multiple sources.
- CAST papers are available on the website and are highly regarded as a source of credible, science-based information.

**Current publications of interest for download** (cast-science.org/publications)

- *Food Waste Across the Supply Chain: A U.S. Perspective on a Global Problem*
- *A Life-cycle Approach to Low-invasion Potential Bioenergy Production*
- *Process Labeling of Food: Consumer Behavior, the Agricultural Sector, and Policy Recommendations (IP56)*
- *The Contributions of Pesticides to Pest Management in Meeting the Global Need for Food Production by 2050 (IP55)*
- *Benefits of Controlling Nuisance Aquatic Plants and Algae in the U.S.*
- *The Potential Impacts of Mandatory Labeling for Genetically Engineered Food in the United States (IP54)*
- *Animal Feed vs. Human Food: Challenges and Opportunities in Sustaining Animal Agriculture Toward 2050 (IP53)*

**Forthcoming Publications from the Plant Work Group.**

- *Agricultural Innovation to Sustainably Feed the World by 2050* (Plant component)
- *Irrigation and Precision Crop Management Technologies* (Issue Paper)
- *Plant Breeding and Genetics, Issue Paper*
- *Recruiting and Educating Graduate Students to Become Researchers and Leaders in Global Agricultural Sciences, Issue Paper*
- *The Impact of CAST—45 Years of Influence in Agriculture, Issue Paper*
- *Why Does Bee Health Matter? The Science Surrounding Honey Bee Health Concerns and What We Can Do About It, Commentary*
On November 13, 2015, we received the sad news that our friend and colleague, Robin Bellinder, professor of Horticulture at Cornell University for 31 years and an international expert in weed control in vegetable crops, died unexpectedly. She was 70 years old. Robin died of a pulmonary embolism after a brief hospitalization and stay in a physical rehabilitation clinic for an unrelated spinal injury.

At Cornell, Robin's research program focused on weed management for vegetable crops. One of few women in her field at that time, she became a national and international leader. She published research results widely in peer reviewed publications, as well as publications that advised growers about her work's practical applications. She served as president of the Northeastern Weed Science Society and, in 2005, was named the recipient of Cornell’s College of Agriculture and Life Sciences award for outstanding accomplishments in applied research. She will be remembered as a weed scientist who ardently and tirelessly supported New York vegetable growers. Robin had a deep concern for people, whether farmers in South Asia, for whom she championed the introduction of more efficient weed control practices, or hungry families in New York's southern tier. She initiated Cornell's efforts to provide fresh fruits and vegetables from the Homer C. Thompson Research Farm to the Food Bank of the Southern Tier. She realized that rather than composting the farm’s edible produce, they could feed hungry area families. Since 2004, as a result of her initiative, Cornell has donated almost 2 million pounds of produce.

Robin will be remembered as an intense, thoughtful, loyal, generous, creative and loving person who tenaciously advocated for the things she believed were important. Mentoring students and seeing them become leaders around the world provided Robin with great satisfaction. At the urging of her colleagues, Cornell is proud to announce the establishment of the Robin Bellinder Graduate Student Fund. The fund will be established “to provide financial support for graduate students working on vegetables crops, with a preference given to projects with a weed science emphasis. The fund will be distributed at the discretion of the chair of the horticulture section, and may be used to supplement travel or research expenses for the successful candidates”.

Those interested in supporting the fund should make their checks payable to “Cornell University” with “Bellinder Fund, Horticulture” in the memo line. We will be happy to share any notes or messages with Robin’s family. Checks can be sent to:

Chair, Steve Reiners, Horticulture Section
Cornell University
134 Plant Science Building
Ithaca, NY 14853 USA

Thank you for your support of the Robin Bellinder Graduate Student Fund.