



President's Message

Peter Dotray

At this time of year it is very satisfying to look back at the accomplishments made in the past year, whether it be another group of graduating students, data collected from research plots, contacts made in extension and outreach activities, or helping our growers successfully fight their weed battle for another year. I hope you can enjoy some quality time with family and friends and find some rest and peace during the busy holiday season before we start anew. This time of year is also exciting when we think about activities that lie ahead in 2017.

I trust you have pre-registered (December 20) and made your hotel reservations (December 20) for our annual meeting to be held at the Hyatt Regency-Wynfrey Hotel in Birmingham, AL January 23-25. Program Chair Gary Schwarzlose has done an outstanding job organizing the 70th annual meeting program. The theme this year is Opportunities, Challenges, and Communicating Solutions. I know you will find the program full of interesting topics. We will have one symposium this year, which is titled Launching New Technology Systems: Roundup Ready® Xtend Crop System. The complete 2017 annual meeting program is available at <https://www.swss.ws/wp-content/uploads/SWSS-2017-Program-Print-Final-.pdf>. Local arrangements chair Joyce Tredaway and her team have been busy to make sure the hotel accommodations are set for another great meeting in Birmingham. There is a lot of work that takes place behind the scenes to make sure all the pieces are in place for a successful and seamless meeting. Please let Joyce and her team know we appreciate their efforts when you see them in Birmingham.

The annual SWSS Golf Tournament will take place on Sunday, January 22. Hunter Perry has done another fine job organizing the event. All of the proceeds go to support the Endowment Foundation. The Endowment Foundation has supported three Enrichment Scholarships for each of the past four years. The 2016 scholarship winners will be making presentations during the general session to describe their experiences. The success of the golf tournament is dependent on sponsors, and I would like to thank all those who sponsored the event this year. Also during the general session we will hear from Lee Wychen, Science Policy Director, who will provide an update on his very active year in Washington DC.

Student Program Chair Hunter Perry and his team have been busy putting together an excellent paper and poster contest again this year. It is a difficult task organizing all of the contest papers and posters, and assembling a large pool of judges that are needed for such an important event. Please let Hunter know we



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2017 Annual Meeting
Hyatt Regency-Wynfrey Hotel
Birmingham, AL
January 23-25, 2017

Look for more details at:

www.swss.ws

Abstract submission: January 16, 2017

Slide presentations for oral paper presentations: January 16, 2017

appreciate his tireless efforts this year. And back by popular demand will be the SWSS Quiz Bowl.

It is my pleasure to announce the newly elected SWSS Board of Directors who will be starting new positions immediately after this year's annual meeting: James Holloway, Vice President; Jim Brosnan, Secretary-Treasurer; John Byrd, Representative to WSSA; Gary Schwarzlose, Endowment Trustee; Muthu Bagavathiannan, Editor; Greg Stapleton, Member-at-Large Industry; and Jason Bond, Member-at-Large Academic. Board members rotating off of positions include Brad Minton, Past President; Daniel Stephenson, Secretary-Treasurer; Eric Palmer, Representative to WSSA; James Holloway, Endowment Trustee; Nilda Burgos, Editor; James Holloway, Member-at-Large Industry; and Joyce Tredaway, Member-at-Large Academia. I am grateful to have served with these dedicated individuals. Thank you for your service to our society.

Lastly, I am happy to announce that Interactive Management Incorporated has been selected to serve as our next Business Manager. Gary Leeper, Vice President and CEO of IMI, and Tara Steinke, SWSS Business Manager, will be in Birmingham and work with Phil Banks during this transition year.

Please stop by and introduce yourself to Tara and Gary and welcome them to our organization. Our society has greatly benefited from the care, attention to detail, and passion from our out-going Business Manager Phil Banks. Phil has been the SWSS Business Manager since 2010, and the meeting this year will be his 8th while serving in this capacity. Phil became a member of SWSS in 1975 and has attended all but two meetings in 41 years. He served as SWSS President in 1994-95. I will miss Phil's leadership and counsel, and wish him all the best in his future endeavors. I hope we continue to see him at future SWSS meetings.

This will be my last article as President of the Southern Weed Science Society. It has been a pleasure to serve as President and work with so many talented and dedicated members while serving in this role. As volunteers with busy day jobs, the success of our organization is largely dependent on the collective volunteer contributions of its members. I think our organization is very strong, and I think we have some very important challenges that lie ahead. I look forward to seeing you in January and wish you Happy Holidays and a prosperous New Year!

Notice

We have filled our room block at The Hyatt Regency Birmingham-The Wynfrey Hotel and there no more rooms available at the block rate of \$147/night for Monday or Tuesday.

You can call the hotel at (205) 705-1234 to find out if rooms are available and at what rate. There are other hotels nearby and they are listed below. We do not have any agreements with these hotels.

Hyatt Place Hoover
2980 John Hawkins Parkway
Hoover, AL 35244
205-988-8444

Holiday Inn Hoover
2901 John Hawkins Parkway
Hoover, AL 35244
205-682-2901

Embassy Suites Hoover
2960 John Hawkins Parkway
Hoover, AL 35244
205-985-9994

The 2017 SWSS program is now available:

<https://www.swss.ws/wp-content/uploads/SWSS-2017-Program-Print-Final-.pdf>

Newly Elected Officers for 2017

Board of Directors - Academia
Board of Directors - Industry Rep
Editor
Endowment Trustee
Representative to WSSA
Secretary-Treasurer
Vice President

Jason Bond (MSU)
Greg Stapleton (BASf)
Muthu Bagavathiannan (Texas A&M)
Gary Schwarzlose (Bayer)
John Byrd (MSU)
Jim Brosnan (UT)
James Holloway (Syngenta)

A complete list of the Executive Board Members, Committee Members and Officers is available at: <http://www.swss.ws/society-information/committees/>.

Endowment Committee Report – December 2016

Summer: Summer went by fast! And here we are looking at Christmas time!

Golf Tournament: Get your teams together!! This is for a very good cause – sign up today!

The **2017 SWSS Golf Tournament** will be held Sunday, January 22 at FarmLinks Golf Club at Pursell Farms in Sylacauga, AL. It is imperative you complete the registration form if you intend to participate. With industry support, we will be able to limit entry fees to **\$25 for students** and **\$50 for non-students**. Simply complete the registration form and follow instructions on the next page. Follow this link for a description of the facility and course layout: <http://pursellfarms.com/>

The tournament will be a 4-man scramble with mixed teams consisting of students, industry reps and university scientists. The purpose is to encourage networking between these groups. Teams will be randomly assembled unless an industry sponsor requests play with certain students. Sponsors will be listed at the registration table during the SWSS annual meeting. Money raised will be will go directly to the SWSS Endowment. If you are interested in becoming a team sponsor, please contact Phil Banks swss@marathonag.com or Hunter Perry dhperry@dow.com

Donations: Donations are needed for the silent auction. If you have something you would like to donate to the Endowment Silent Auction, please let me know.

Endowment Scholarship Experience: This is an excellent opportunity for students to interact with individuals outside their normal job description. If you missed your chance to put in an application, I encourage you to set yourself a reminder for the 2017 calendar year. Even though the deadline for the 2017 applications have not been set as of yet, it will be sometime around the first week of April, 2017. As a review, the following is an outline for the Scholarship.

Purpose: Provide an opportunity for SWSS graduate and undergraduate students to participate in a week long educational experience with Industry or Academia.

Description of Scholarship: Scholarship winners will have a week long educational experience of their choosing. Opportunities include learning among many areas of weed science including experiences from the field to the lab, in research or extension, and with industry or academia. Winners will be provided \$1500 from the SWSS Endowment to pay for expenses incurred during their experience.

Eligibility Requirements: Applicants must meet the following criteria:

1. The applicant must be an undergraduate or graduate student in good academic standing enrolled in a degree program (B.S., M.S., or Ph.D.) at an accredited college or university in the southern region.
2. Graduate students must be actively conducting, or have recently finished, research in the area of weed science. Undergraduates must document their interest in the area of weed science.
3. The applicant must be a member of the SWSS at the time of application.
4. **The applicant must present a 10 minute paper and submit an abstract about their experience at the SWSS annual meeting following their experience.** Specifics will be provided directly to winners.

Again, if you missed the deadline to apply in 2016, please be prepared to apply in 2017. An email with all the pertinent information will be sent to the SWSS list serve following the 2017 Annual meeting.

Respectively Submitted,
James Holloway
President Endowment Committee

WASHINGTON REPORT

December 15, 2016
Lee Van Wychen

Trump Administration Starting to Take Shape

Washington DC is abuzz with all the activities that come about with a change in the office of the President and leadership among all the federal government agencies. As I write this, most of president-elect Trump's agency heads have been selected except for USDA and Veteran's Affairs. I will provide a more in depth look at Trump's cabinet members at the SWSS meeting. In Congress, the chairs and ranking members of the House and Senate Ag Committees will remain the same and will be ready to start working on the 2018 Farm Bill. However, the leadership for the agriculture appropriations committee's will likely see changes, which we will not know until the 115th Congress of the United States begins in 2017.

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/

Federal Government Funded on CR Through April 28.

Congress passed a continuing resolution (CR) just before midnight on Dec. 9, funding the government at FY 2016 levels through April 28, 2017. The new 115th Congress of the United States will have to deal with the remainder of FY 2017 funding as well as start on FY 2018 federal funding where sequestration will kick back in for discretionary spending and how those recessions will be distributed between defense and non-defense programs. Most federal research dollars depend on non-defense discretionary funding.

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=E-PA-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.

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

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

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: 10.1038/ncomms12560

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.

National Invasive Species Awareness Week (NISAW)

NISAW will be held February 27 to March 3, 2017. Please visit www.nisaw.org for information invasive species webinars and lunch briefings as well as a Congressional Fair on March 1 on Capitol Hill. In addition, Obama issued an Executive Order (EO) on Dec. 5 that makes some amendments to the original invasive species EO issued in 1999. See: <https://www.whitehouse.gov/the-press-office/2016/12/05/executive-order-safeguarding-nation-impacts-invasive-species>

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: <https://www.doi.gov/sites/doi.gov/files/uploads/2016-2018-nisc-management-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 disper-

sal. 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>

Lee Van Wychen, Ph.D.
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National and Regional Weed Science Societies
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www.wssa.net

SWSS Quiz Bowl is BACK!!!

After a year’s sabbatical, SWSS quiz bowl returns to our annual meeting. Please come prepared to match your wits with others in a fun, informal time of fellowship. See the SWSS program for the exact time and location.

If you have any suggestions, or would like to contribute useful (that would be useful) suggestions, the coordinator is always open to new ideas. He is also looking for a “guest question reader”, so if you have an interest in contributing in that way (and if you have a sense of humor) please let the coordinator know.

The coordinator looks forward to seeing you at the SWSS quiz bowl.

Thanks for reading,

Tom Mueller
SWSS Quiz Bowl Coordinator
tmueller@utk.edu

**If you submitted a title for the meeting please note these deadlines: Go to the Title/Abstract site to submit your abstracts: <https://wssaabstracts.com/user/home.php>
Abstract submission: January 16, 2017
Slide presentations for oral paper presentations: January 16, 2017**



July, 2017
(exact dates to be determined)
Pre-Registration now untill
March 2017
Knoxville, TN

Courtyard Marriott
Knoxville West/Bearden
250 Brookview Center Way
Knoxville, TN 37919
865-690-7680

More info contact us:
Tom Mueller, Coordinator
Phone 865-974-8805
tmueller@utk.edu

Tennessee Weed Science Society
P.O. Box 53141
Knoxville, TN 37950
www.tnwss.org

Tennessee Weed Science Short Course

Do you need a concentrated, focused short course to refresh your knowledge of herbicides modes of action and herbicide resistance? This is the course for you!!

What is included in the course?

1. >26 hours of instruction, hands-on demonstrations and field trips.
2. All students receive a comprehensive workook detailing course content.

How much does the course cost?

- Course fee is \$1000 per person.
- Course materials and handouts included with registration.

Yes, I want to attend the 2017 TN Weeds Short Course

Name _____

Company/Affiliation _____

Mailing Address: _____

City _____ State _____ Zip _____

Phone _____

Email _____

(Pre-register until March 1, 2017.) Class limited to 40 students.

Speakers Include:

Steve Duke, USDA-ARS, PhD, Duke University; Published >400 peer-reviewed articles (as well as numerous books) on herbicide mode of action, allelopathy, herbicide-resistant crops, and non-weed pest management. He is currently the Editor-in-Chief of Pest Management Science.

Patrick J. Tranel, University of Illinois, PhD, Michigan State University; Professor with expertise in herbicide resistance and weed molecular biology, genetic, and genomics.

Peter Sikkema, University of Guelph, PhD, University of Western Ontario; Peter conducts research on weed management in corn, soybean, cereals and edible beans. Peter has published more than 250 peer-reviewed manuscripts and was author/co-author of more than 250 presentations at scientific conferences.

Dale L. Shaner, PhD, University of Illinois; Weed science researcher for 36 years at University of California, Riverside, American Cyanamid/ BASF and USDA-ARS. Expertise in herbicide mechanism of action, herbicide resistance and herbicide-soil-plant interactions.

Todd A. Gaines, Colorado State University, PhD, Colorado State University, Assistant Professor; Areas of emphasis include molecular biology and genetics of herbicide resistance, and developing novel traits in crops through mutagenesis.

Thomas C Mueller, University of Tennessee, PhD, University of Georgia (pictured with his wife Sara) coordinates the class and teaches several lectures. His area of expertise is environmental fate of herbicides.

Arkansas Passes State Restrictions on Dicamba

The Arkansas State Plant Board, in response to the off label use of dicamba in 2015-16 and over concerns of potential drift to non-dicamba tolerant soybean has passed state regulations essentially banning the use of non-DGA formulations of dicamba in the state. In addition it has imposed a cut-off date of April 15th for the use of any dicamba formulation other than the new BAPMA salt (Engenia) formulation from BASF. These regulations will limit the use of Monsanto Xtend brands as well. These regulations will mean that for most of the state all in-season applications to Xtend crops will by rule have to be Engenia. Considerations for use of older formulations of dicamba in the state are currently being deliberated by the Board. For more information you can visit the Arkansas State Plant Board web site at plantboard.arkansas.gov.

Position Vacancy Announcement

MANAGER, R&D - RESEARCH (JOB # 2016-9531)

Valent U.S.A Corporation, a wholly owned subsidiary of Sumitomo Chemical Company, Limited, engages in the development, registration, sales and marketing of integrated technological solutions for crop production and pest management that deliver value for our customers and stakeholders. A leading crop protection firm serving the agricultural and non-crop products markets in North America, Valent products help growers produce safe and abundant food and fiber crops, and horticultural professionals improve the quality of life for their customers. The corporate motto, Products That Work, From People Who Care®, describes the company's business philosophy. Valent seeks out and provides customers with innovative and effective solutions to their production challenges. Our vision is to be the best company delivering integrated solutions of biorational and traditional crop protection solutions to our customers. Valent is dedicated to creating a world that is healthier and more comfortable, and that has a sustainable abundance of quality, affordable food, helping crops to be the ultimate renewable resource. We are currently searching for a Manager, R&D – Research to work with our Field Discovery Team in Seymour, Illinois.

Description of Job: Conduct field and greenhouse research for the development and support of products, projects and programs for various crops, pesticides, and biologicals at Midwest Agriculture Research Station near Seymour, Illinois. Develop strategies, analyze and interpret data to ensure effective achievement of scientific objectives and advancement decisions. Working knowledge of precision agriculture tools (GIS, SSM, VRT, SMS Software, etc) to apply geospatial technologies and others to agricultural production or management activities. Conceive and implements new technologies allowing tasks to be done more efficiently. Execute short term and long term capital improvements at research station. Monitor and evaluate day-to-day completion of tasks and projects to maintain operations in addition to managing cost center budget. Train and supervise the research technicians and seasonal workers. All workers involved in operations must perform the work to the designated quality standards and maintain legal and EHS compliance. Individual will work with Midwest Field Development team to implement and execute training for internal team and external customers. Responsible for maintaining the highest level of confidentiality, customer service and professionalism; responsible for promoting a positive image of the company and the research department. Skills: Basic understanding of weed science, plant pathology and entomology. Customer focus, interpersonal skills, teamwork; required to interact with a large range of internal employees /departments and external customers; must demonstrate excellent research and communication skills. Employee supervision. Experience: 3+ years of related experience, plus 0 – 2 years management experience

Education: M.S. or PhD or equivalent desired

Other: Internal contacts include the Technology Manager, Marketing Management, Product Development Managers, Sales, QA, R&RA, Formulations, Residue Chemistry, ARC Personnel, Research Manager and other FMD Specialists. External contacts include University and Extension personnel, private test agency scientists, farmers, consultants, the press, ad agencies, commodity group personnel and state regulatory agencies.

Interested candidates can apply by clicking on the link <http://www.valent.com/careers/> By January 8, 2017 or until position is filled.(Equal Opportunity Employer / E-Verify Employer)