President’s Report - by Andrew Kniss

It’s almost meeting time again! I’m looking forward to seeing everyone at the Grand Hyatt Denver March 11th through the 14th. Once again, I want to remind everyone to be sure they tell their cab driver, GPS navigation system, or Siri that it is the Grand Hyatt where we’ll be having the meeting. It isn’t the Hyatt House, or the Hyatt Place, or the Hyatt Regency. All these Hyatt hotels are within about 4 blocks of each other in downtown Denver, so it is a common source of confusion. But at least it’s a quick walk from one to the other if you get dropped off at the wrong one.

President-Elect Pat Clay has been working hard on the program and should have a good one. It sounds like paper & poster numbers are up again this year, which is a good sign for our society. We had a successful election, and the Awards and Fellows committees have done a great job selecting honorees this year. I look forward to getting to announce those results soon.

The Board of Directors will meet on Monday, March 11 beginning at 8:00 am, and will plan to conclude by 5:00 pm. At this board meeting, we will be reviewing officer and committee reports. If you are a committee chair, now would be a great time to contact your committee and ensure that the report is finished and submitted on time. I will be sending out a reminder to officers and committee chairs prior to the meeting. If you have ideas or agenda items you would like the Board to consider, please let us know soon. As usual, we will also have a short Board meeting at the conclusion of our annual meeting on Thursday as well, and I hope that all newly elected officers will be in attendance.

I’d like to say a special thank you to Sandra McDonald, local arrangements committee chair, and Pete Forster, site selection committee chair, for going above and beyond the call of duty over the last couple months to ensure this and future meetings will be a success. It is reassuring to know that we have so many selfless leaders in the society that are willing to devote their personal time to the WSWS.

Finally, I want to let everyone know that we have recently had another change in our contact at IMI for the WSWS Business Manager position. Although it has come at a relatively difficult time being so close to the annual meeting, I was comforted to learn that Eric Gustafson will now be the lead person to help our society. Eric attended last year’s meeting in Anaheim, and many of you had the opportunity to meet him while he was at the registration desk for most of the meeting. Eric also currently serves in the Executive Secretary role within WSSA,
President’s Report – CONTINUED FROM PAGE 1

where he already manages a similar set of responsibilities for that society. My interactions with him while on the WSSA board were very positive, and I have confidence he will serve our society well. Be sure to say “hi” and welcome Eric to the WSWS when you arrive in Denver, and feel free to reach out to him at info@wsweedscience.org.

72nd Annual Meeting of the Western Society of the Weed Science - Program Highlights – Pat Clay, Program Chair

Greetings and Happy New Year. We have a great program in place that should be informative and stimulating. There are many reasons to attend this years’ meeting at the Grand Hyatt in Denver. If you have not already done so, please register for the meeting by February 11, 2019 to take advantage of the regular registration rate of $250.00. After February 11, the price goes up to $350.00 for the regular member registration. Also, please book your hotel room at the conference hotel using the WSWS website or Grand Hyatt Denver Hotel Room Reservations. Cutoff for the hotel booking is February 15, 2019.

We will begin the week with our customary Welcome Reception on Monday evening March 11. Tuesday will kick off with the poster session at 7:45 AM (Authors of odd numbered papers will present). We will follow with our General Session on Tuesday Morning at 9:45 AM. After the General Session, we will have a packed schedule of Break-Out Sessions for the Projects. On Wednesday, we start again with Posters (Authors for even numbered papers will present). Again, a full slate of Break-Out sessions will fill the morning until the Awards Luncheon at noon. Wednesday afternoon will continue with Break-Out Sessions as well as a Special Symposium organized by Amanda Crump, Matt Baur and Kassim Al-Khatib titled “Integrated Pest Management Research in the West”. But wait there is more – What’s New from Industry and the popular Student Night Out will cap off the day. Thursday we will conduct the important business of the society at the Business breakfast followed by additional Break-Out sessions. Starting as well on Thursday morning is a second symposium lead by Sandra McDonald titled “Rights-of-Way – Beyond Integrated Vegetation Management to Integrated Habitats!”

We are really excited that we have a packed program for you this year with 70 poster presentations. Of the 70, our students will be front and center with 23 posters entered in the Graduate Student Poster Contest and 8 Undergraduate posters (Six of which are competing in the contest). As far as Oral presentations are concerned, we have 82 submitted papers. Again, the students will be a major focus with 24 entered in the oral presentation competition. With the general session and the 2 symposia, we will have access to 174 papers and posters at the 2019 Annual Meeting.

Denver and the hotel venue will be great, the meeting is packed with great content and we look forward to seeing you in Denver.

Other important dates to remember: Abstract Submission Deadline **Friday March 1, 2019** and Slide Presentation Upload Deadline **Friday March 8, 2019**. See you in Denver!
Greetings Students,

I hope that everyone enjoyed a refreshing holiday break and is ready to prepare some great research for our 2019 annual meeting. If anyone has any items that they would like to donate for the student silent auction it would be very much appreciated. You are welcome to bring items with you to the meeting or contact me for shipping arrangements if traveling with them would be inconvenient. Each year we count on donated items to raise enough money to fund the student scholarship program and we cannot do it without the help of generous society members.

At this time Lucas and I would like to ask for nominations for the student liaison position. If you would like to nominate yourself, please prepare a brief statement and send it to Lucas (lucas.kopecky-bobadilla@oregonstate.edu) or myself (clint.beiermann@huskers.unl.edu) by the end of February. It should contain a one paragraph bio, and a second paragraph stating why you would like to serve as student liaison. I plan to send out the statements from applicants to the student members before the meeting so that students get a chance to learn a little about the applicants before the meeting. Floor nominations for this position will still be welcome at the student business meeting if someone decides to run later.

Serving as the student liaison has been an amazing opportunity and I would highly recommend it. The first year spent as elect helps in learning the role by assisting the chair. During the second year spent as chair, the liaison is a voting member of the board. Having the opportunity as a student to spend two years on the board of the society is a huge career building experience and a great opportunity to network with other scientists. Please also consider becoming involved by serving as the student representative to the paper judging committee. This role is a one-year commitment and we will be asking for nominations for this position at the student business meeting as well.

Student events at the upcoming meeting will include our business lunch on Tuesday, with student reception to follow that evening, and student night out on Wednesday evening. I would like to thank Bayer for sponsoring our student business lunch and I would also like to thank Syngenta for sponsoring the student reception. Feel free to reach out with any questions or concerns. Looking forward to a great meeting and I hope to see everyone there.

Best regards,

Clint Beiermann, Student Chair
clint.beiermann@huskers.unl.edu

Lucas K. Bobadilla, Student Chair (elect)
lucas.kopecky-bobadilla@oregonstate.edu
A Note from the Business Office

You can conveniently register for the 2019 annual meeting in Denver by going to our website:

- Current Member Registration Link
- Non-Member Registration Link
- Printable PDF Form Link

Please take time to register for the 2019 Annual Meeting. The preregistration deadline is February 11, 2019. After that date, the registration price goes from $250.00 to $350.00.

Also, you must make your room registration for the Grand Hyatt Denver before February 15th in order to get a room at our block rate. Room reservations can be made by following this link: Grand Hyatt Denver Hotel Room Reservations. We would highly recommend not waiting until the last minute to secure a hotel room. We are looking forward to seeing everyone in Denver!

There are a number of fantastic events planned for meeting attendees and we are very excited about the work that has gone into this year’s program and location selection. It is going to be a fantastic week.

As always, if you need to contact the office, please give us a call at (303) 327-8016 or e-mail at info@wsweedscience.org

Eric Gustafson, WWS Business Manager/Treasurer

Reminder from the Necrology Committee!

If you are aware of past WSWS members who have passed away since the 2018 meeting please forward the obituary to (h.hatterman.valenti@ndsu.edu). If you prefer, call me at (701) 231-8536. It is very important that we remember deceased members appropriately at our upcoming annual meeting.

Harlene Hatterman-Valenti, Chair
CALENDAR OF EVENTS

Southern Weed Science Society Annual Meeting
February, 3-7, 2019
Oklahoma City, Oklahoma
www.swss.ws

Weed Science Society of America Annual Meeting
February, 11-14, 2019
New Orleans, Louisiana
www.wssa.net

Western Society of Weed Science Annual Meeting
March 11-14, 2019
Denver, Colorado
www.wsweedscience.org

Aquatic Plant Management Society Annual Meeting
July 14-17, 2019
San Diego, California
www.apms.org

Canadian Weed Science Society Annual Meeting
November 18-21, 2019
Kelowna, British Columbia
www.weedscience.ca

North Central Weed Science Society Annual Meeting
December 9-12, 2019
Columbus, Ohio
www.ncwss.org

RECENTLY RETIRED or PLANNING TO RETIRE?

Please let us know of WSWS members who may be planning to retire soon or have retired that have not been recognized at our annual meeting. In a change from the past, at the last meeting we recognized these folks during the Wednesday Awards Luncheon. This was well received by nearly all members, and this was discussed at the summer board meeting. The board would like to try this again and see how it goes particularly if we have a full complement of awards to hand out. It also depends on how many retirees are able to attend to be formally recognized. So please let us know by March 1st of these individuals so we can plan and properly recognize their contributions to the WSWS. You can contact me at (509) 443-8749 or monte.anderson@bayer.com.

Monte Anderson
Local Arrangements Report – Sandra McDonald

To reserve rooms at meeting block rates [$172 (single and double occupancy), $197.00 (triple occupancy) and $222.00 (quadruple occupancy)], use the following link: Grand Hyatt Denver Hotel Room Reservations or call 1-303-295-1234. The Group Code is G-WSWS. The deadline for room reservations at meeting block rates is February 15th, 2019.

TRANSPORTATION CENTERS:

Denver International Airport: 25 miles
Union Station (bus & rail): 1 mile

TRANSPORTATION:

Plan to fly to Denver International Airport. Domestic arrivals are located in the center of the main terminal on Level 5. International arrivals are located at the north end of the main terminal. Baggage claim is also located on Level 5. The A Line trains depart from Level 1 of the airport's Transit Center, under the Westin Denver International Airport. To get to Denver Airport A Line Station, follow signs to the "Transit Center" and proceed to the south end of the main terminal on Level 5. Exit the terminal through the sliding glass doors and take the escalator located in the center of the plaza down to Level 1.

Travel to Downtown Denver. To get to Downtown Denver you can take the University of Colorado A Line train from the airport to Union Station. Then you can make your way to the Grand Hyatt using the Free Mall Shuttle, walking, taxi or other ride share service. Shuttle services are also available from the airport, as are taxis and ride share services.

Tickets for the A Line may be purchased at the ticket vending machines located on the train platform using cash or credit cards. The A Line is 23 miles from the airport to downtown's Denver Union Station and takes 37 minutes. There are six stops and Union Station is the final stop. The airport fare is $10.50 per day from any of the stations along the A Line and includes unlimited rides on the A Line as well as the entire RTD Light Rail system during a single business day. Visit the RTD website to learn more http://www.rtd-denver.com/a-line.shtml

The Grand Hyatt Denver is located about one mile from Union Station. The 16th Street Shuttle (Free Mall Shuttle) departs from Union Station and stops 1 block from the Grand Hyatt. When you get off the train turn right (west) and walk about a block to the Free Mall Shuttle stop on the corner of 16th St. and Wynkoop St. (please note you must cross the street - in front of Office Depot). The Grand Hyatt stop is Welton St. (On stop past California St.) The Grand Hyatt is east (cross 16th St.) and continue on Welton St. The Grand Hyatt will be on your right after you cross 17th St. To learn more or get a map please visit http://rtd-denver.com/FREEMallRide.shtml. The Free Mall Shuttle operates from 4:59 am on weekdays, 5:30 am on Saturdays and 6:30 am on Sundays. Service continues throughout the day and ends at 1:00 am.

Driving to the Grand Hyatt and Parking. Please contact Sandra McDonald (sandra@mountainwestpest.com) if you need detailed driving directions or parking information for oversized vehicles.

LOCAL ATTRACTIONS

Denver is an active vibrant city. To learn more about events and what to do in Denver please visit https://www.denver.org/.

Denver offers several modes of transportation for getting around the area.

- 16th Street Shuttle – Runs throughout the central business and entertainment district of downtown Denver
- Light Rail Service/RTD – Stops at most corners in the city, including Invesco Field, Pepsi Center/Six Flags/Elitch Gardens, Union Station - Lower downtown (LODO)/Coors Field/16th Street Mall
Arnold Appleby was born on October 24, 1935, raised on a farm near Formoso, Kansas, and died on December 6, 2018 at age 83 in Corvallis, Oregon. He received the B.S. in Agricultural Education in 1957 and M.S. in Agronomy in 1958 from Kansas State University. After teaching math and biology at Bazine High School in Kansas, he joined the faculty in Farm Crops at Oregon State University in 1959. He received the PhD in Weed Science at OSU in 1962 and spent two seasons at the Pendleton Branch Experiment Station conducting weed research. He then returned to Corvallis where he was associate project leader under W.R. Furtick. In 1969, the project was divided and Furtick headed up the international work while Appleby became project leader of the domestic research. He began teaching the beginning weed control course and herbicide science course in 1965 and continued until his retirement in 1992, plus three more years post-retirement. This involved nearly 2,000 students over the 30 years.

Appleby was active in both the Weed Science Society of America and the Western Society of Weed Science. He served two terms as WSSA Secretary and was elected Vice-President in 1974. He was forced to resign because of serious experimental eye surgery, from which he eventually recovered. He was named the Outstanding Teacher in 1971, Fellow in 1976, and Outstanding Researcher in 1983.

In WSWS, he was elected to the offices from Secretary through Past President. He was named Fellow in 1976 and Outstanding Weed Scientist in 1991. He also was named Fellow in the American Society of Agronomy and the Crop Science Society of America. He served as Associate Editor for both Weed Science and Agronomy Journal.

On campus, he was named Teacher of the Year in Crop Science three times, received the R.M. Wade Award as Outstanding Teacher in the College of Agriculture, won three Distinguished Professor awards, and won several Distinguished Service awards from commodity groups and other organizations.

One part of his professional activities that he looked back with most pleasure was advising graduate students. He directed 44 M.S. programs and 30 PhD programs. He maintained an e-mail address list with about 140 ex-OSU weed personnel, with whom he maintained correspondence until his death.

He authored several books, including the history of WSWS, WSSA, the OSU Crop Science Department, the OSU weed program, and the Agricultural Research Foundation.

Following retirement, he maintained an office in Crop Science and served as Building Manager. He was on the Board of Directors of the Agricultural Research Foundation and chaired the Competitive Grant Committee of that organization for sixteen years. He was named Volunteer of the Year by the OSU Retirees Association. In 2001, he received the Distinguished Service award from Kansas State University. In 2009 he was named Diamond Pioneer at OSU, and in 2010, he was inducted into the OSU College of Agriculture Hall of Fame, the first on-campus faculty to be inducted in the 30-year history of the Hall.

Weed science was Appleby’s life and he always held the hope that any impact of his on that profession was beneficial.

He is survived by his wife, Gerry, of Corvallis; two sons, Brian and Brent; two sisters and a brother; five grandchildren, and five great-grandchildren.
EPA Re-Registers Dicamba Through 2020


New Dicamba Product labels: Xtendimax with Vaporgrip (Updated since Nov. 1, 2018), Engenia, & Fexapan.

Dicamba federal register documents: EPA has also posted several documents on the regulations.gov website pertaining to dicamba: www.regulations.gov/docket?D=EPA-HQ-OPP-2016-0187. Under “Supporting Documents” there are two documents: 1) Dicamba Pesticide Use Limitation Areas - County list; and 2) The Scientific Basis for Understanding the Off-Target Movement Potential of Xtendimax, which is a 46 page document from Monsanto that explains why (a) vapor drift occurring due to volatilization should not result in impacts off the treated field; and (b) spray drift will not occur past the label’s required buffer distances in amounts that would have an adverse effect on plant height. Also, under the “Comments Section”, there is a post from Oct. 31, 2018 titled “Dicamba 2018 Comments”, which is 553 pages of documents that EPA received from stakeholders asking them to re-reregister, not re-register, etc.

Dicamba lawsuit. The National Family Farm Coalition, Center for Food Safety, Center for Biological Diversity (CBD) and Pesticide Action Network (PAN) North America filed a lawsuit against EPA in 2017 claiming that the 2016 registration of the three new dicamba herbicides violated the Endangered Species Act and FIFRA. See “Ninth Circuit Dicamba Battle” for more details. If the Ninth Circuit Court of Appeals rules in favor of the plaintiffs, EPA would have to suspend the registration of the three new dicamba products. A decision may not occur until this coming spring but could happen in the coming weeks.

2018 Farm Bill Signed into Law

The House voted 369-47 on Dec. 12 to pass the 2018 Farm Bill, after the Senate approved it 87-13 the day before. President Trump signed it on December 20th. The measure is divided up into 12 titles. Title VII reauthorizes a number of important USDA research programs including the Agriculture and Food Research Initiative (AFRI), the Specialty Crop Research Initiative (SCRI) and the Organic Agriculture Research and Extension Initiative (OREI). Under SCRI, language was added to focus specialty crop research on “emerging and invasive species”, efforts to achieve a better understanding of “pesticide application systems and certified drift-reduction technologies”, and “mechanization and automation of labor-intensive tasks in production and processing”.

There was a provision in the House version that provided legislative guidance to streamline the FIFRA-Endangered Species Act (ESA) consultation process, which is in major need of repair. While that language did not make it in the compromise agreement, the Farm Bill did create a “FIFRA Interagency Workgroup” that will be composed of reps from USDA, Interior, Commerce, EPA and the Council on Environmental Quality that will “provide recommendations regarding, and to implement a strategy for improving, the consultation process required under section 7 of the Endangered Species Act of 1973 for pesticide registration and registration
review”. In carrying out these duties, the Farm Bill directs this interagency workgroup to “consult with, representatives of interested industry stakeholders and nongovernmental organizations.”

Other items of interest to weed science stakeholders that made it into the final version of the 2018 Farm Bill included the approved use of “Categorical Exclusions” by the Forest Service and Bureau of Land Management for invasive weed control for the purpose of Sage Grouse and Mule Deer habitat restoration as well as to the legalization of the commercial cultivation and sale of industrial hemp, including $2 million per year for research on “agronomic rotational purposes” of alternative crops such as hemp. Finally, the Farm Bill also establishes a USDA pilot program that shall be known as the Agriculture Advanced Research and Development Authority (AGARDA) to carry out advanced research and development. The goals of AGARDA are “to develop and deploy advanced solutions to prevent, prepare, and protect against unintentional and intentional threats to agriculture and food in the United States; to overcome barriers in the development of agricultural technologies, research tools, and qualified products and projects that enhance export competitiveness, environmental sustainability, and resilience to extreme weather; to ensure that the United States maintains and enhances its position as a leader in developing and deploying agricultural technologies, research tools, and qualified projects and products that increase economic opportunities and security for farmers, ranchers, and rural communities; and to undertake advanced research and development in areas in which industry by itself is not likely to do so because of the technological or financial uncertainty. It will have its own director and be funded at $50 million per year through FY 2023.

USDA Ag Research Leadership Almost in Place

USDA Secretary Sonny Perdue swore in Dr. J. Scott Angle as the Director of the National Institute of Food and Agriculture (NIFA) on October 29. The White House appointed Angle for a six-year term at the agency on August 31. Dr. Angle was most recently President and CEO of the International Fertilizer Development Center (IFDC). He worked for 24 years as a professor of soil science and administrator for the Maryland Agricultural Experiment Station and Maryland Cooperative Extension at the University of Maryland. He also served as Dean and Director of the College of Agricultural and Environmental Sciences at the University of Georgia for 10 years.

Dr. Scott Hutchins had his nomination hearing on November 28 for his role as Chief Scientist and USDA Under Secretary for Research, Education and Economics. The Senate Ag Committee approved Dr. Hutchins and he was on track to get approved by the full Senate. However, he was used as a “political football” over USDA Secretary Perdue’s proposal to move USDA NIFA and ERS outside of the national capital region. Thus, when the 115th Session of Congress expired on January 3, 2019, his unapproved nomination now goes back to the White House and he’ll have to go through the nomination process again. However, the second time should be easier (knock on wood).

USDA-ARS Weed Science Under Review

The National Program Leader (NPL) overseeing weed science programs within the ARS’s National Program 304 (NP 304) Crop Protection and Quarantine, Dr. Rosalind James, has resigned from that position and is now the ARS Associate Area Director for the Northeast Area. We expect USDA to hire a new NPL to oversee weed science and we would definitely like this person to be a weed scientist. In addition, USDA-ARS NP 304 is undergoing review and seeking input to help develop a new 2018-2022 five-year Action Plan. Crop Protection and Quarantine stakeholders are invited to an all-day workshop on February 6, 2019 (pending the end of the government shutdown). For background information regarding NP 304, see: https://www.ars.usda.gov/crop-production-and-protection/crop-protection-and-quarantine/. The workshop will present highlights from NP 304’s accomplishments during the last five years, and the results of a recent Retrospective Review of this National Program’s performance.

USDA-NIFA Move from DC

In August, USDA announced that NIFA and ERS would be moving from D.C. While the new location for the agencies has yet to be determined, the timeframe for the move is expected to occur by the
end of 2019. USDA’s announcement of intent to move the agencies has garnered many concerns from the agricultural research community, including WSSA. However, the Science Policy Committee has not reached a consensus on whether to support or oppose the move. WSSA did submit a letter to USDA Secretary Perdue with some concerns and questions. See [www.wssa.net](http://www.wssa.net). In October, USDA received 136 “expressions of interest” from various institutions and cities in 35 states to be the new host location for NIFA and ERS. A rigorous site selection process is being conducted by Ernst & Young, a leading provider of professional services with a dedicated Construction and Real Estate Advisory Services practice, to assist in the relocation process. According to USDA NIFA Director Scott Angle, the first round of cuts has been made and progress continues towards a second round of cuts that will narrow down the field of 136 “expressions of interest” to approximately five. However, the process has been slowed somewhat by the partial government shutdown.

**EPA and Army Propose New WOTUS Definition**

On December 12, the EPA and the U.S. Army Corp of Engineers (the agencies) proposed a new definition of “waters of the United States” (WOTUS) in an attempt to provide clarity, predictability and consistency so that the regulated community can easily understand where the Clean Water Act applies—and where it does not. Under the agencies’ proposal, traditional navigable waters, tributaries to those waters, certain ditches, certain lakes and ponds, impoundments of jurisdictional waters, and wetlands adjacent to jurisdictional waters would be federally regulated. It also details what are not “waters of the United States,” such as features that only contain water during or in response to rainfall (e.g., ephemeral features); groundwater; many ditches, including most roadside or farm ditches; prior converted cropland; stormwater control features; and waste treatment systems.

The agencies’ proposal is the second step in a two-step process to review and revise the definition of WOTUS consistent with the President Trump’s February 2017 Executive Order, which states that it is in the national interest to ensure that the nation’s navigable waters are kept free from pollution, while at the same time promoting economic growth, minimizing regulatory uncertainty, and showing due regard for the roles of Congress and the states under the Constitution. More information is at: [https://www.epa.gov/wotus-rule](https://www.epa.gov/wotus-rule).

**Alexandra Dapolito Dunn Approved for EPA’s Top Chemical Safety Spot**

Dr. Dunn was approved by the Senate on January 3, 2019 to lead EPA’s Office of Chemical Safety and Pollution Prevention (OCSPP). This office oversees the Office of Pesticide Programs (OPP) that conducts the pesticide registration process. She is an environmental lawyer and law professor specializing in water quality issues. Alexandra was the Regional Administrator for EPA Region 1 (Northeast U.S.) and prior to that, served as executive director and general counsel for the Environmental Council of States (ECOS) as well as the Association of Clean Water Administrators.

**Lohr Appointed NRCS Chief**

USDA Secretary Sonny Perdue announced on December 3 that Matt Lohr, a former lawmaker from Virginia and former state agriculture commissioner, will be leading the Natural Resources Conservation Service (NRCS) at the USDA. In his role, Lohr will provide leadership for NRCS and its mission to support America’s farmers, ranchers, and forest landowners in their voluntary conservation efforts through a network of over 3,000 offices in communities nationwide. Lohr owns and operates Valley Pike Farm, Inc. in Virginia. He held public office, serving in the Virginia House of Delegates from 2006-2010 and then served as Virginia’s Commissioner of Agriculture and Consumer Services from 2010 to 2013. More recently, Lohr worked as Knowledge Center Director for Farm Credit of the Virginias, a customer-owned financial cooperative that provides resources and education outreach to local farmers and the community.
USDA Announces Update to National IPM Road Map

On October 24, USDA announced the first update since 2013 of the National Road Map for Integrated Pest Management (IPM). The update culminates a yearlong review by the Federal Integrated Pest Management (IPM) Coordinating Committee (FIPMCC), a joint effort that is coordinated by the Office of Pest Management Policy (OPMP) in the Office of USDA’s Chief Economist with representatives of all federal agencies with responsibilities in IPM research, implementation, or education programs. These agencies include EPA, Interior, and Department of Defense. The National Road Map for IPM was first introduced in 2004 and is periodically updated to reflect the evolving science, practice, and nature of IPM. One very welcome update in the Road Map is the recognition of the role of pesticide safety education in IPM.

National Invasive Species Awareness Week (NISAW): February 25 – March 1, 2019

This is the 20th year of national invasive species awareness events. For the first time, we’re looking at two additional NISAW events, one in April dealing with policy issues and one in June that will be “NISAW in the Field” for state and local organizations to host public hands-on invasive species management events. If you’re interested in helping, please let me know!

National Survey of Common and Troublesome Weeds

The 2018 survey results for weeds in aquatic and non-crop areas are now available at http://wssa.net/wssa/weed/surveys/. The most troublesome weed in the three aquatic areas was hydrilla and most troublesome in the four non-crop areas was cogongrass. Not surprisingly, both those weeds are on the federal noxious weed list. What was surprising is that hydrilla was also the most common aquatic weed in the U.S. What can APHIS do to help get these weeds under control? Likewise, cogongrass is listed as the 6th most common non-crop weed. The most common non-crop weeds are the Bromus spp., in particular downy brome (cheatgrass). The 2019 weed survey will focus on weeds in broadleaf crops, fruits and vegetables.

Lee Van Wychen, Ph.D.
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Phone: (202) 746-4686
Predicted Suitable Habitat Models for Biocontrol in Montana

By Melissa Maggio, Montana Biocontrol Project Coordinator

A major hurdle in a weed biocontrol program is the introduction and establishment of viable populations of biocontrol agents. Site selection is one of the most important choices we can make at the beginning of a biocontrol program. The majority of the information we have on best suited sites for successful weed management with biocontrol are based on anecdotal evidence. Most people assume that if the target weed is present, the agent can be released, but many other factors can negatively impact success. It is often difficult to identify and quantify reasons why biocontrol agents fail to establish. Factors such as soil, slope, aspect, shade or moisture could potentially all have an influence on successful establishment.

The Montana Biocontrol Project provided the Montana Natural Heritage Program with data associated with known established populations of six biocontrol agents for leafy spurge, spotted knapweed, and yellow and Dalmatian toadflax and they developed a predicted suitable habitat model for each. These models provide insight into site characteristics associated with successful establishment. Models help to increase the efficacy of biocontrol by guiding land managers’ releases of the insects to sites where they will most likely survive, establish, and assist in the management of the target weed species, thus saving time and money. When insects are released in suitable habitat, they are more likely to reduce the weed infestation and build up their populations to the point that they can be collected and moved to new locations, or they will disperse themselves to nearby infestations. When managed properly, established populations of biocontrol agents are a renewable resource that can be utilized for cost effective control of their target weed.

The first generation of models are preliminary and do not take into account presence of host plant species. In order to strengthen the model outputs, especially in region where we are currently lacking data, we need information on locations of known, established populations of biocontrol agents.

To view the complete model output for leafy spurge, spotted knapweed, and the toadflaxes, visit the following links to Montana Field Guide Species Accounts. A link to model write ups and outputs is included under the habitat section of each account.

Black Dot Leafy Spurge Flea Beetle – *Aphthona nigriscutis*
Brown-legged Leafy Spurge Flea Beetle – *Aphthona lacertosa*
Red-headed Leafy Spurge Stem Borer – *Oberea erythrocephala*
Knapweed Root Weevil – *Cypholeon achates*
Yellow Toadflax Stem-boring Weevil – *Mecinus janthinus*
Dalmatian Toadflax Stem-boring Weevil – *Mecinus janthiniformis*
Save the Date – April 15-18, 2019 – Western Invasive Weed Short Course

The 9th Annual Western Invasive Weed Short Course will be held April 15-18, 2019 at the Sylvan Dale Guest Ranch in Loveland, Colorado.

The continued partnership with the Sylvan Dale Guest Ranch allows us to provide some unique training opportunities. One of the truly unique features of the Short Course is the ability to have a long-term restoration plot. Sylvan Dale has worked with us to establish a fenced site where we have been able to demonstrate weed management combined with native grass establishment. A twilight weed walk on the first night is a great way to see the ranch and start learning some weeds.

The WIWSC is an intensive study of current technologies and best management practices associated with noxious and invasive weeds in the western United States. Participants gain up-to-date knowledge specific to invasive weed management with interactive sessions that include:

- Classroom lecture
- Hands-on demonstration
- Field plots
- Facilitated discussion
- Live weed and herbicide symptomology specimens
- Small group projects
- Educational games
- Time for individual interaction with instructors

The 2019 WIWSC will be similar to the previous Courses, to see agendas please visit http://www.mountainwestpest.com/Past_Courses.php. The Organizing Committee builds the final agenda based on a pre-course survey of registered participants to assess specific areas of participant interest. The pre-course survey will not be sent to participants until they have completed the registration process.

Our target participants are local, state, federal government, and other land managers throughout the western region desiring a better understanding of weed management. WIWSC is designed to benefit both those new to invasive plant management and experienced professionals seeking a comprehensive update in western invasive weeds and their management. The WIWSC instructors are members of the Western Society of Weed Science.

The registration fee includes the educational program, course manuals, laboratory sessions and related course materials, other supplies and daily refreshment breaks. Three lunches and three dinners are also included in the registration. Registration will open in November 2018.

Please contact Sandra McDonald, Course Coordinator, for additional information at 970-266-9573 or Sandra@MountainWestPest.com.
Publications Available from the Western Society of Weed Science

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

_____ Aquatic and Riparian Weeds of the West ........................................... $45.00
_____ Weeds of California and Other Western States ................................ $85.00
_____ Weed Control in Natural Areas in the Western United States .......... $40.00
_____ Interactive Encyclopedia of North American Weeds DVD .................. $50.00

Total

All publications can be ordered online at www.wsweedscience.org (click on WEED BOOKS)
To order by mail and pay by check, send this completed form with payment to:

WSWS Business Manager, 12011 Tejon St., Ste 700, Westminster, CO 80234.

Contact the Business Manager (Eric Gustafson) at (303) 327-8016 for bulk order prices.

Shipping Information:
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State: ____ Zip Code: _________ Telephone: ______________
e-mail: ______________________________________________________________

WSWS Objectives

❖ To foster and encourage education and research in weed science.
❖ To foster cooperation among state, federal and private agencies in matters of weed science.
❖ To aid and support commercial, private and public agencies in the solution of weed problems.
❖ To support legislation governing weed control programs and weed research and education programs.
❖ To support the Weed Science Society of America and foster state and regional organizations and agencies interested in weed control.