Executive Director of Science Policy Report
Lee Van Wychen
WSWS Annual Meeting – 2022

SCIENCE POLICY COMMITTEE NOTES

MAR 31, 2021

AGENDA

- **EPA Liaison Search (Bill Curran)**
  - EPA and NIFA advisory committees established and solicited applications
  - Interviewed 5 applicants
  - Mark VanGessel (University of Delaware) is the new EPA Liaison
  - Mark has stepped into the new position and is reaching out to partners
  - Email/newsletter announcements of this to WSSA forthcoming

- **USDA NIFA Fellow:** Jim Kells
  - NIFA funding for Weed Genomics Conference: Sep. 22-24, 2021 in Kansas City
  - New NIFA director, Dr. Carrie Castille from Louisiana. Lee, Jim and Vijay plan to meet with her soon.
  - Lots of transition for NIFA in the last 18 months with move to Kansas City.
  - New NIFA NPL – Katie Dentzman - Social Scientist who did a lot of work with Herbicide Resistance Education Committee on social aspects of herbicide resistance and its management
  - Working on grant concept related to AI/robotic weeding
  - Planning mid-Oct 2021 webinar on NIFA funding opportunities for weed science
  - NIFA posted 8 March 2021 webinars for new investigators; WSSA will send link

- **Weed Science research priorities survey (Lee Van Wychen)**
  - Dan Brainerd (Michigan State) is WSSA Research Priorities Committee chair
  - Results of survey will be published in *Weed Science*
  - Will share survey questions at next SPC call; future SPF will work on this
  - Priorities from survey will be used to advocate at NIFA (Jim Kells)
- **Plans to schedule a strategic session on weed science role in a changing climate (Janis McFarland)**
  - First suggested topic: Biden EO on tackling climate crisis
  - WSSA needs to cultivate common message/goal and be the trusted source on weed science information
  - Janis will be calling a strategic meeting to discuss the EO in next 2 weeks
  - Climate change is also important to the herbicide resistance committee
  - Tri Societies and NASDA interested in partnering on common position/strategy
- **2021 National Invasive Species Awareness Weeks (NISAWs),** www.nisaw.org/nisaw-2021/
  - NISAW Part I - Information and Advocacy – was February 22-26, 2021.
    - Lee gave webinar titled "Show Me the Money" on Feb. 26
  - NISAW Part II - Outreach and Education – is May 15-22, 2021
    - Local and state demonstration and awareness events.
  - NISC funding was restored to $1.2M in FY 2021.

- Lee working with Scott Cameron, former DOI budget guru, to compose letter on all taxa invasive species funding requests.
- Reestablish Invasive Species Advisory Committee (ISAC) and plus up NISC.

- **CAST paper on economic costs of invasive species (Jill Schroeder)**
  - Entomology CAST rep (Phil M.) proposed invasive species issue paper idea
  - Discussion to continue in collaboration with NAISMA
  - Next steps: frame a proposal and assemble a task force
  - Paper will be about plants only and focus on societal and economic costs of invasion, comparing public and private lands impact
  - Anita will recruit someone from WSSA to be on this taskforce
  - Goals: Strengthen partnerships w/ CAST and NAISMA; solidify position as the trusted source on invasive plant issues.
  - CAST issues paper will not produce economic analysis, but will review and summarize knowns/unknowns.

- **Paraquat/Glyphosate/Triazines/ESA update: Monty Dixon; Carroll Moseley**
  - Several comment periods and label updates in the past year
  - Globally, more press/legal attention
  - Paraquat is toward the end of its multi-year re-registration process
  - Closed transfer systems for quantities under 120gal. Some other changes in who can handle the product
  - Largest decision in final PID: no aerial application except for cotton desiccation
  - Applications are often made in wet conditions when ground application not possible, so this has been the focus of many comments submitted.
  - Ban on handheld applications; change to REI; change to mask/respirator requirements
  - Final decision should come out by end of September (end of fiscal year)
  - WSSA has posted its comments on all of these PIDs on its sci pol website
  - Much critical input from academic partners and growers on use rates

- **Science Policy Fellows (SPF)**
  - Camp Hand and Vasiliy Lakoba have completed their SPF and already have jobs.

Application Deadline for 2021 Fellows- Friday, April 2

MAY 12, 2021

AGENDA

1. Introduction of new Science Policy Fellows: Rebecca Champagne and Devon Carroll
   a. Contact them at rebecca.champagne@maine.edu and dcarro17@vols.utk.edu

2. WSSA Research Priorities Committee update: Dan Brainard
   a. Last survey was published in 2009 (Davis et al) - committee is developing a revised survey with 10 broad categories for respondents to rank, as well as subcategories to rank within each broad category.
   b. Subcategories are currently being compiled with the goal of circulating to members by end of June; results will be analyzed this fall.

c. Jacob Barney- majority of people doing invasive spp research are not in WSSA- consider sending survey to other groups as well.

3. WSSA Noxious and Invasive Weeds and Biocontrol Committee update: Jacob Barney
   a. Noxious weeds - potentially propose to board hosting noxious weed information on WSSA web site
   b. Biocontrol - interest in organizing a biocontrol symposium at annual meeting

4. CAST update: Jill Schroeder
   a. Proposal for a CAST issue paper is in the works to identify the topic within the invasives issues that would be developed to discuss what we know, questions remaining, policy/funding recs. WSSA board approved officially partnering with CAST on this effort.
   b. PPDC meeting tomorrow 5/13 to discuss status update of the pesticide resistance management workgroup tasked with providing recommendations to EPA.

5. EPA Liaison: Mark VanGessel
   a. New MOA discussion last week - discussed new numbering system, implementation
   b. Will be giving vegetable weed control seminar in July
   c. Participated in EPA cover crop discussion
   d. A separate, but related issue: In Feb. 2021, the WSSA Herbicide Resistance committee requested to add a question to the national weed survey about herbicide lack of control issues with weeds to help identify potential resistant species. After further discussions with the committee and EPA, it was decided not to address this issue via the national weed survey.

6. Recap of Weed Science Presidents Congressional visits: Anita/Harlene/Caren/Clete/Sandra
   a. Conducted 11 virtual visits with staffers in five states.
   b. The three main requests were fund the IR-4 Project at $20M in FY 2022; CPPM at $25M in FY 2022; $11.5B investment in ag research infrastructure

7. APMS Congressional Visits: Re: 2020 WRDA appropriations
   a. The 2020 WRDA bill authorized over $100 million in new invasive species management and HAB projects. While authorization is good, the agencies will not be able to carry out any of those new projects without appropriated dollars in FY 2022.
   b. Lee will work on scheduling visits with leaders of House & Senate Appropriations subcommittees for Energy & Water, which is responsible for many of the new 2020 WRDA projects. House leaders are from OH & ID. Senate leaders are from CA & LA.

8. Hydrilla/dead eagles: Mysterious Eagle Killer Identified
   a. Rob Richardson - cyanobacteria on leaves of hydrilla produce bromine neurotoxin that is bioaccumulating and passing up food chain to birds
   b. Herbicides targeted as the cause, but nothing to back this up

9. APHIS spending on Federal Noxious Weeds
    a. Only spending $3.1 million out of $360 million on weeds - major concern
    b. Lee - use public awareness committee to address importance of noxious weeds and provide more education on them

10. FY 2022 Invasive Species Appropriations Requests
    a. PDF attached to Lee's email (put link to Science Policy page)

11. Recap of meeting with NIFA director, Dr. Carrie Castille; Farm of the Future comments
    a. On April 14, Anita Dille, Bill Curran, Jim Kells and Vijay Nandula met with NIFA Director Castille to discuss weed science priorities, which included weed genomics, intelligent weed management and the CPPM program.
    b. On May 6, Lee provided oral comments to USDA-NIFA "Farm of Future" proposal, which were based off comments submitted by Jim Kells.

OTHER BUSINESS

-Invasive Species Wikipedia Edit-a-thon. The session will include an introduction and information about the Information Center and invasive species from Joyce Bolton, head of the National Invasive Species Information Center, and other guest speakers from USDA. Then, a one-hour training on Wikipedia editing and [provide information on updating invasive species articles on Wikipedia. During the event experienced editors and Invasive Species experts will be on hand to assist and answer questions. **May 20, 2021; 11am – 3pm ET.**

-National Invasive Species Awareness Week (NISAW II) Education and Outreach

- **Monday, May 17th**, 1:00 pm – 2:00 pm CT:
    - The Climate Crisis and Invasive Species
- **Tuesday, May 18th:**
    - 8:00 am-12:30 pm CT: Biological Threat Surveillance Tools (US Geological Survey Special Event)
    - 1:00 pm – 2:00 pm CT: The Model Legislative Framework for State Aquatic Nuisance Species (ANS) Programs and Resource Toolkit for Local Governments
- **Wednesday, May 19th**, 1:00 pm – 2:30 pm CT
    - The Regulatory Process for Classical Weed Biological Control
- **Thursday, May 20th**, 1:00 pm – 2:00 pm CT
    - **Aquatic Plant Management Priorities**
- **Friday, May 21st**, 1:00 pm – 2:00 pm CT
    - **A Comparison of State Noxious Weed Lists and The Western Weed Action Plan**

JUNE 23, 2021

AGENDA

1. PPDC Resistance Management Workgroup: Amy Asmus & Jill Schroeder.

a. Recap of what has happened since the May PPDC meeting. Discussion of the draft recommendations. They are still early in this process and will share the draft once it is farther along.
b. Goal is to develop recommendations to the EPA in addressing pesticide resistance with stakeholders. What is the role/authority of EPA to facilitate implementation?
    i. Four charge questions >>>10 group recommendations
    ii. Eliminate conflicts, create interagency workgroup, convene panels of experts on resistance issues, centralized network/watchlist of weeds, investment/improvement in education, resistance management oversight, cooperative industry agreements, encourage proactive resistance management programs, update/develop training materials, consider incentive programs, organize yearly meeting with stakeholders, explore private project with e-labeling, development of tools for resistance detection

2. Tolerance vs. resistance on herbicide labels. Updating the definitions: Ray McAllister
    a. The North American Herbicide Resistance Action Committee (HRAC) and CropLife America's (CLA) Registration Committee are proposing to update tolerance and resistance definitions to replace those published in *Weed Technology* 12:789 in 1998. Those definitions were adopted by EPA in PRN 2017-2 (pp 5-6). The purpose of this effort is to align with long-standing terminology used on herbicide product labels, generally understood by herbicide users throughout the United States, and consistent with other terminology use by EPA. Following publication of PRN 2017-2, some product managers in EPA's Office of Pesticide Programs have initiated efforts to have registrants reverse the terminology on herbicide product labels to match the definitions used in that Pesticide Registration Notice. We are concerned that this will cause confusion among herbicide users and increase the possibility of unintentional misuse. We believe it would be most prudent to revise the definitions to match wide-spread and long-standing common usage, and maintain the current language usage on herbicide labels. Since EPA has relied on the WSSA definitions, we are approaching you as a first step.
    b. Have three WSSA committees review proposal, then discussed at board level.
    c. Will send to appropriate regional committees, this is free to be shared
    d. Might be difficult to get practitioners to change language from tolerant to insensitive
        i. This is primarily for labeling purposes. Goal is to standardize language
    e. Some debate on use of " insensitive weeds"
3. EPA Liaison: Mark VanGessel
    a. Will be giving a seminar on weed control in processing vegetables on July 21, 2021 at 11 a.m. E.S.T.
4. NIFA Fellow: Jim Kells
    a. 2021 International Weed Genomics Consortium is Sep. 22-24, 2021 in Kansas City, MO. https://www.weedgenomics.org/
5. CAST update: Jill Schroeder

a. Proposal for a CAST issue paper is in the works to identify the topic within the invasives issues that would be developed to discuss what we know, questions remaining, policy/funding recs. WSSA board approved officially partnering with CAST on this effort.

6. USDA survey data included in the 2020 dicamba registration decision
   a. We discussed the USDA NASS ARMS data referenced in the Oct. 2020 dicamba registration decision. Specifically the 2019 cotton data for dicamba.
   b. Reference: https://www.regulations.gov/document/EPA-HQ-OPP-2020-0492-0003, Dicamba Use on Genetically Modified Dicamba-Tolerant (DT) Cotton and Soybean: Incidents and Impacts to Users and Non-Users from Proposed Registrations: Table 9, p. 36
   c. Based on this data, you can calculate that 51% of dicamba-tolerant cotton acres were treated with dicamba products not labeled for over-the-top use in 2019.
   d. However, after a discussion that Stanley and I had with NASS personnel, there is lot of extrapolation that happens with the survey data that results in inaccuracies. For example, in Georgia, there was more dicamba-tolerant cotton acres treated than actual cotton acres in the state.
   e. Still, there was clearly off-label applications and we need to continue stress the need to use labeled products.

7. Update on diquat/hydrilla/eagles
   a. Bald eagles, as well as other wildlife, have been succumbing to vacuolar myelinopathy (VM) in the southern U.S. since the 1990s. In a March 2021 issue of Science, researchers finally identified the neurotoxin, aetokthonotoxin (AETX), which is produced by the cyanobacterium *Aetokthonos hydrillicola* that is the cause of VM deaths. The cyanobacterium, *A. hydrillicola*, grows very well on hydrilla covering 20-90% of its leaf surfaces. *A. hydrillicola* has also colonized hydrilla in more than half the watersheds in the southeastern US.
   b. Reference: "Hunting the eagle killer: A cyanobacterial neurotoxin causes vacuolar myelinopathy" by Breinlinger et al., 26 March 2021, Science 371. DOI: 10.1126/science.aax9050
   c. There was some controversy created by inaccurate media reports that linked the herbicide diquat dibromide as a possible cause. AETX biosynthesis relies on the availability of bromide. The authors recognize that a number of conditions may increase or even decrease bromide availability such as environmental conditions (e.g., lake turnover, agitation), natural sources (e.g., geologic), as well as anthropogenic sources (e.g., power plants, water treatment plants, gasoline additives, chemicals, plant management). Breinlinger et al. (2021) state that "*the consequences of elevated bromide from geologic and anthropogenic sources (e.g., water treatment and power plants) on VM should be further investigated*".
   d. It should be noted that there are VM-positive water bodies with AETX where diquat has never been used. Likewise, diquat controlling hydrilla is desired because hydrilla is the source of the problem. No hydrilla = *A. hydrillicola* = no AETX.

e. Furthermore, the water concentration of bromide after a diquat application is 25 to 125 times below the optimum water concentration of bromide required for AETX production.
f. The bigger travesty in all of this is that hydrilla is a federally listed noxious weed, and without question, the most widespread aquatic noxious weed on the federal list. APHIS Plant Protection and Quarantine (PPQ) has limited funding for managing and preventing the interstate spread of federal noxious weeds under the Plant Protection Act. While APHIS has active permits for two hydrilla biocontrol agents, *Hydrellia balciunasi* and *Hydrellia pakistanae,* unfortunately, APHIS confirmed that they do not have a current program for the control and management of hydrilla. I am having ongoing conversations with APHIS on this issue.

OTHER BUSINESS

- WSSA rep to PPDC: Amy Asmus
  - **Plans to re-nominate Amy for a third 2-yr term to serve from Dec. 2021 to Dec. 2023. She does a great job on behalf of WSSA and brings a lot of unique experience to the PPDC. Three terms is the max limit. Deadline for re-noms is July 23, 2021.**
- Proposed WOTUS rollback
  - **On June 17, 2021, the EPA and the Army Corps of Engineers announced plans to revise the definition of "waters of the U.S." or WOTUS to determine which waterways and wetlands federal agencies can regulate under the Clean Water Act.**
  - **The agencies also intend to initiate a new rulemaking process to restore the pre-2015 definition of what constitutes WOTUS and have requested a federal judge to remand the Trump Administration's 2020 Navigable Waters Protection Rule. The 2020 rule, which replaced the Obama Administration's 2015 Clean Water Rule, moved WOTUS back towards Congress's original intent of "navigable waters" and removed ephemeral streams that flow only after heavy rainfall or snowmelt as well as wetlands without surface water connections to intermittent or perennial streams from the agencies definition of WOTUS.**
- FY 2022 appropriations status
  - **President's budget released May 27. Highlights include IR-4 funding at $20 million and AFRI at $700 million.**
  - **The House Appropriations Committee has started this week to consider its versions of the 12 spending bills for FY 2022.**
- Potential reintroduction of the Neguse "anti-FIFRA" bill
  - **A version of last year's bill likely to be re-introduced soon. Rep. Neguse-CO is leading the effort in the House while Sen. Corey Booker-NJ is leading the effort in the Senate.**
- 2021 Common and Troublesome Weeds Survey: https://www.surveymonkey.com/r/2021WeedSurvey

August 18, 2021

Thanks again for the discussion and input regarding whether to update WSSA's 1998 definitions of herbicide resistance and tolerance. The end result was that we agreed to have President Dille appoint a special committee, made up of researchers who specialize in this topic and educators who have to

explain it to users. The committee needs a clear directive on direction from both a WSSA standpoint and a federal policy standpoint.

ACTION ITEMS

- Ray McAllister will contact registrants to find examples of where EPA herbicide product managers have initiated efforts to have registrants reverse the terminology on herbicide labels due to WSSA's 1998 definitions.

- EVERYONE: If you are interested in serving on the Special Committee to consider updating the definitions of herbicide resistance/tolerance, please email Anita Dille ASAP. dieleman@ksu.edu

OTHER BUSINESS

• Federal Infrastructure bill- $450 million over 5 yrs for invasive plant removal programs through Dept. of Transportation and US Forest Service. Additional language included for a Bureau of Reclamation watershed competitive grant program for accomplishing protection against invasive species and restoration of native species.

• FY 2022 appropriations- House and Senate ag numbers show Increases for many programs, including ARS, IR-4, AFRI, SARE, Hatch Act and Smith Lever extension. The House and Senate Energy & Water approps also show a 33% & 66% increase, respectively, for the Army Corp of Engineers Aquatic Plant Control Research Program.

October 6, 2021

AGENDA

- Update on Ad-hoc Committee for Herbicide Resistance/Tolerance definitions - Dille
    - Finalizing committee
    - Working on defining a clear mission – what are our goals, our audience, etc.
    - Ray working on compiling examples from EPA
- Discussion of Weed Science Societies letter to Interior Sec. Haaland on use of indaziflam on BLM land. (**ATTACHED**)
    - Lee would like all Presidents to review and sign this letter
- EPA Liaison update- VanGessel
    - Dicamba discussions – asked to summarize what is going on in dicamba crops, have label modifications had an impact, state reports
    - Proposed changes for MOA and site of action – working on timeline for when these changes should be implemented to inform registrants and extension – going to be at least 18 months
- NIFA Fellow update- Kells
    - International Weed Genomics conference recently held – strategic planning exercise discussed future research needs in weed genomics – hope to use as roadmap for NIFA
    - Weed research priorities survey is almost ready to go out
    - Some possible webinars for this winter/spring – funding opportunities with NIFA, including opportunities that have historically been underutilized

- Need WSSA volunteers to serve on NIFA panels – will work on recruiting during annual meeting in Vancouver

- CAST Rep update- Schroeder
  - PPDC session end of October – recs from resistance working group will be discussed
  - CAST Board meeting end of October in Columbus, OH
  - Potential issue papers – invasives, rangeland management
- Fall Congressional Visits
  - In-person won't happen this fall – be on the look out for virtual visit information
- Status of FY 2022 Appropriations, Infrastructure Bill, and Budget Reconciliation Bill for weed science funding (**See ATTACHED newsletter**)

OTHER BUSINESS

· National Invasive Species Awareness Week (NISAW) will be February 28 – March 4, 2022 and will return to a single weeklong event and "fly-in" to Washington DC. If you have topics or issues of concern, or would like to help plan next year's NISAW, please let me know.

· Carroll – please fill out the WSSA annual meeting survey that was emailed to everyone the other day

November 17, 2021

AGENDA

- USDA-ARS – Steve Young
  - Update – hiring weed scientists in ARS!
  - Two positions in hiring stage
    - Louisiana and Minnesota
  - Two more opening soon
  - Area-wide pest management project now has a website: https://www.ars.usda.gov/research/project/?accnNo=149756 ??
    - Meeting held on 11/16/2021
    - 6 current projects (2 on weeds)
      - Agronomic weeds (GROW) https://growiwm.org/ Steve Mirsky
      - Invasives in aquatic systems
  - Proposed climate change funding in congress ($50 million proposed) for ARS
    - Having projects ready to go if funding comes through
  - Symposium showcasing weed science across ARS at WSSA
    - Other ARS folks will likely attend meeting (ARS offices will tentatively re-open for "normal business" on Jan. 3.)
  - Steve needs data for the following
    - Crop losses associated with weeds: https://wssa.net/wssa/weed/croploss-2/
    - Areas (acres) covered by invasive plants
    - Impacts of HR weeds
    - Costs to control invasive plants and crop weeds
      - USDA-ERS can likely provide some of this information
      - Cameron Douglass has ERS contacts

- USDA-OPMP- Cameron Douglass
  - Regulatory update (Re-Registration/herbicide issues)

- Pyridine herbicides
    - EPA final decisions on aminopyralid (OK) clopyralid
        - 18 month holding on treated plant material
        - cancelled supplemental labeling on hay for transport
    - Might form a work group on this
- Dicamba – waiting for EPA decision to drop any day now
- Enlist – re-reg on One and DUO
- Atrazine – good conversations
- Herbicide/biological evaluations
    - Atrazine, simazine, glyphosate
- Biological control regulations
    - Better clarity on regulatory front for FIFRA exemptions
        - Help out US Forest Service
- Indaziflam – discussions with FWS/NMFS and BLM regarding ESA

- Endangered Species Act (ESA) Workshop update- Stanley Culpepper
    - Planning for WSSA ESA Workshop (Webinar) on Jan. 13, 2022 from 1 – 4 pm E.S.T.
        - Build a large gathering of diverse individuals
        - Covering agency roles and descriptions of work
        - Role of WSSA
    - EPA finalized its biological evaluations on glyphosate, atrazine and simazine. All 3 are "likely to adversely affect (LAA)" certain ESA species and their "designated critical habitats." Affects all registered uses and approved product labels for those three herbicides. The LAA determination means EPA "reasonably expects" that "at least one individual animal or plant, among a variety of listed species, may be exposed to the herbicide at a sufficient level to have an effect, which will be adverse.
    - This is a process all pesticides must now go through, as required by the ESA.
    - Now EPA sends its evaluations to the U.S. Fish and Wildlife Services (FWS) and National Marine Fisheries Service (NMFS), i.e. “the Services”, which will develop their own biological opinions based on EPA's findings. If they find that these herbicides put an endangered species or critical habitat in "jeopardy," they will work with EPA to propose “additional protections” that could come in the form of a new label and use restrictions. However, not all species or habitats identified in the evaluation as at risk will necessarily require major changes to the registrations.

- PPDC Herbicide Resistance Workgroup Update – Asmus/Schroeder
    - Working groups now make formal recommendations (made @ last meeting)
        - Not just discussion based
    - Adopted and recommended by PPDC to move to proper places within EPA
        - “More formal marching order” to the EPA
    - **5 recommendations for herbicide resistance:** **Link to Full report**

      1. EPA should explore changes in pesticide labels to make them more uniform across manufacturers. Labels need to contain clear and concise language so all needed information to implement resistance management is easily found and understood by end users such as crop consultants, pesticide decision makers, and commercial and private pesticide applicators.

      2. EPA should conduct a thorough review of EPA policies and regulations that impact

resistance management and remove contradictions and situations that hinder effective resistance management to the maximum extent possible.

3. EPA should expand collaboration and outreach efforts with other federal agencies and convene panels of relevant stakeholders to address specific priority issues and questions associated with resistance and resistance management.

4. EPA should explore how it can encourage proactive pesticide resistance management and prevention programs in cooperation with industries and universities through cooperative agreements, updated training materials, and grant programs.

5. EPA should explore the creation of incentive programs for assistance in overcoming the hurdles associated with resistance management, in particular incentives to researchers, users and suppliers for accurate early detection and timely adoption of regionally specific resistance management actions.

- Next steps… working groups need to have a specific charge
  - Stakeholders should continue in an advisory capacity
    - Can answer EPA questions/follow-up
    - What would the charge be?
  - What are other areas we need a work group to look at?
    - Previous submission for a workgroup on labeling
      - Open to trying again?
      - Hesitation because this is submitted as a recommendation already
        - Springboard to entire label?
      - If resubmitted, will take a long time

- NAISMA and NISAW – Elizabeth Brown
  - Check NAISMA website to see letters written and issues supported
  - Creation of three new sub-committees recently
  - National Invasive Species Awareness Week (NISAW) will be February 28 - March 4, 2022 and will return to a single weeklong event and "fly-in" to Washington DC.
    - Week after WSSA in Vancouver, week before WSWS meeting in CA
    - Open invitation if anyone wants to join in planning
    - Can sign up for alerts on the website
    - Also updated toolkit
  - Lee is looking at key meetings with the heads of USDA, DOI, ACOE etc. to discuss “big picture” invasive species issues within their agency. If you have topics of concern, please let Lee know.

- CAST Rep- Jill Schroeder
  - CAST Annual meeting a few weeks ago
  - New publication talking about 50 years of CAST
  - Proposed an issue paper to Plant Work group on invasive weeds led by Jacob Barney
  - Jill will be presenting a poster on 50 years of CAST achievements at WSSA

- Weed Science provisions in Infrastructure Law – Lee

- Signed into law on Monday
- Need a committee on how to use these provisions?
- These are authorizations, NOT appropriations yet
- SEC. 11522. **Invasive Plant Elimination Program**. Federal-Aid Highways. **$250 million total**, $50 million per year for FY 2022 thru FY 2026. The Secretary (Department of Transportation, through the Federal Highway Administration) "shall carry out a program to provide grants to States to eliminate or control existing invasive plants or prevent introduction of or encroachment by new invasive plants along and in areas adjacent to transportation corridor rights-of-way".
    - The term ''invasive plant'' means a nonnative plant, tree, grass, or weed species, including, at a minimum: cheatgrass, Ventenata dubia, medusahead, bulbous bluegrass, Japanese brome, rattail fescue, Japanese honeysuckle, phragmites, autumn olive, Bradford pear, wild parsnip, sericea lespedeza, spotted knapweed, garlic mustard, and **palmer amaranth.**

- SEC. 40804. **Ecosystem Restoration**. Through the US Forest Service, **$200 million total** for the fiscal years 2022 through 2026) shall be made available for invasive species detection, prevention, and eradication, including conducting research and providing resources to facilitate detection of invasive species at points of entry and awarding grants for eradication of invasive species on non-Federal land and on Federal land.

- SEC. 40907. **Multi-Benefit Project To Improve Watershed Health.** Through the Bureau of Reclamation (BOR). Not later than 1 year after the date of enactment of this Act, the BOR Commissioner, in consultation with the heads of relevant agencies, shall establish a competitive grant program to award grants to eligible applicants for the design, implementation, and monitoring of conservation outcomes of habitat restoration projects that improve watershed health in a river basin that is adversely impacted by a Bureau of Reclamation water project by accomplishing 1 or more of the following:
  (1) Ecosystem benefits.
  (2) Restoration of native species.
  (3) Mitigation against the impacts of climate change to fish and wildlife habitats.
  (4) **Protection against invasive species.**
  (5) Restoration of aspects of the natural ecosystem.
  (6) Enhancement of commercial, recreational, subsistence, or Tribal ceremonial fishing.
  (7) Enhancement of river-based recreation.

- BLM Letter on indaziflam and money for invasive weed management. Lee
    - Comments due COB TODAY. Thanks for all the excellent reviews.
    - WY & CO Governors received a response from Stone-Manning saying that BLM "is in the early stages" of the process to add indaziflam as an approved vegetation treatment on BLM land.
    - Revisit during National Invasive Species Week?
        - Especially if we secure a meeting with DOI Secretary Haaland

- APMS Congressional Visits report – Richardson/Lee
    - Richardson, Heilman, Thum and Van Wychen met with key staffers of the House and the Senate Energy and Water Appropriations Committees last week to discuss funding for the

ACOE Aquatic Plant Control Program and the ACOE HAB Demonstration Program included in 2020 WRDA.
    - Meetings went very well

OTHER BUSINESS

- **Weed Science Presidents-** Congressional Visits: Round 2 regarding FY 2022 Appropriations. Looking at either Dec. 1-3 or Dec. 8-10.
    - Lee will poll the presidents on availability

- FYI…. https://www.kcur.org/news/2021-11-15/corporate-money-keeps-university-ag-schools-relevant-and-makes-them-targets-of-donor-criticism

January 12, 2022

AGENDA

- Welcome new members: David Simpson- NCWSS President; Jacob Barney- NEWSS President; Steve Pyle- NEWSS WSSA Rep
- FY 2022/2023 Appropriations: 2020 WRDA & 2021 Infrastructure laws
    - Friendly reminder to keep the pressure on Congress so these programs are not forgotten and can receive appropriations.
    - The 2020 Water Resources Development Act (**WRDA**):
        - **authorizes $25 million for a Harmful Algal Bloom (HAB) demonstration program** to "determine the causes of, and implement measures to effectively detect, prevent, treat, and eliminate, harmful algal blooms associated with water resources development projects". The HAB demonstration program will be carried out by ACOE with focus areas in the Great Lakes, the tidal and inland waters of New Jersey, the coastal and tidal waters of Louisiana, the waterways of the counties that comprise the Sacramento-San Joaquin Delta, California, the Allegheny Reservoir Watershed in New York, and Lake Okeechobee, Florida.
        - Directs the Army Corps to conduct a **terrestrial noxious weed control pilot program** in consultation with the Federal Interagency Committee for the Management of Noxious and Exotic Weeds (**FICMNEW**) "to identify and develop new and improved strategies for terrestrial noxious weed control on federal land under the jurisdiction of the Secretary (of the Army)".
        - Authorizes $50 million per year for FY 2021 - 2024 for ACOE to "enter into partnerships with applicable States and other Federal agencies to carry out actions to **prevent the introduction of, control, or eradicate invasive species that adversely affect water quantity or water quality"** in the Platte River Basin, the Upper Colorado River Basin, the Upper Snake River Basin, and the Upper Missouri River Basin. ACOE shall give priority to projects that are intended to control or eradicate Russian olive (Elaeagnus angustifolia) or saltcedar (of the genus Tamarix).
        - Authorizes $10 million for the Secretary of the Interior, acting through the Director of the U.S. FWS, to establish a pilot program "**to remove invasive plant species in riparian areas that contribute to drought conditions**" in the Lower Colorado River Basin; the Rio Grande River Basin; the Texas Gulf Coast Basin; and the Arkansas-

White-Red Basin; and where appropriate, to replace the invasive plant species with ecologically suitable native species and to maintain and monitor those riparian areas.
        - Authorizes $25 million for the Secretary of the Interior, acting through the Director of the U.S. FWS, to establish a pilot program "to develop and carry out effective measures necessary to **prevent, control, or eradicate aquatic invasive species in alpine lakes** that are not located within a unit of the National Park System".

    - The 2021 Infrastructure Law authorizes:
        - **SEC. 11522**. **Invasive Plant Elimination Program**. Federal-Aid Highways. **$250 million total**, $50 million per year for FY 2022 thru FY 2026. The Secretary (Department of Transportation, through the Federal Highway Administration) "shall carry out a program to provide grants to States to eliminate or control existing invasive plants or prevent introduction of or encroachment by new invasive plants along and in areas adjacent to transportation corridor rights-of-way". The term ''invasive plant'' means a nonnative plant, tree, grass, or weed species, including, at a minimum: cheatgrass, Ventenata dubia, medusahead, bulbous bluegrass, Japanese brome, rattail fescue, Japanese honeysuckle, phragmites, autumn olive, Bradford pear, wild parsnip, sericea lespedeza, spotted knapweed, garlic mustard, and **palmer amaranth.**
        - **SEC. 40804**. **Ecosystem Restoration**. Through the US Forest Service, **$200 million total** for the fiscal years 2022 through 2026) shall be made available for invasive species detection, prevention, and eradication, including conducting research and providing resources to facilitate detection of invasive species at points of entry and awarding grants for eradication of invasive species on non-Federal land and on Federal land.
        - **SEC. 40907**. **Multi-Benefit Project to Improve Watershed Health.** Through the Bureau of Reclamation (BOR). Not later than 1 year after the date of enactment of this Act, the BOR Commissioner, in consultation with the heads of relevant agencies, shall establish a competitive grant program to award grants to eligible applicants for the design, implementation, and monitoring of conservation outcomes of habitat restoration projects that protect against invasive species (and other goals)

- CAST update: Jill Schroeder
    - Active strategic planning in progress
        - Jill will be reaching out for guidance
    - Invasives project proposal was approved – Jill approved as liaison.
        - Next steps: come back to WSSA to recruit a task force chair
- National Invasive Species Awareness Week (**NISAW**): Feb. 28 – Mar. 4. https://www.nisaw.org/
    - Has moved to **virtual event**, instead of fly-in
    - Looking at upper-level meetings with USDA, DOI, ACOE leaders to discuss invasive weeds issues within their agency and discuss adding noxious weeds to definition of "plant pest" in the 2023 Farm Bill.
- BLM/Indaziflam letter update – thank you for all the feedback!
    - WY & CO Governors received a response from BLM saying it "is in the early stages" of the process to add indaziflam as an approved vegetation treatment on BLM land.
    - Will send weed science societies letter as a reminder during NISAW.
- Congressional Visits recap

- The science policy fellows helped coordinate 10 visits for the weed science society presidents in December
- The three main issues we discussed were: increasing appropriations for the IR-4 Program from $11.9 million to $20 million, opposition to the Booker bill (*see below*), and supporting appropriations for the DOT Invasive Plant Removal Program in the Infrastructure Bill.

- Opposition to anti-FIFRA legislation/Booker bill (*coalition letter attached to email*)
  - **S. 3283**, also called the "Protect America's Children from Toxic Pesticides Act." The bill was introduced in the Senate by Sen. Booker-NJ. The bill undermines the science-based safety standards under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA).
- EPA Liaison: Mark VanGessel
  - Cranberry production/bog weed control presentation given to EPA recently
  - EPA will hear presentation pertaining to weed management in specialty crops/nurseries this week
  - Announcement released late December – still no final decision on Dicamba, but reserve the right to make changes to Dicamba registration moving forward.
  - Extended registration another 5 years for Enlist technology, but with expanded restrictions on use.
  - Moving forward, they will be consulting the Endangered Species Act more when looking at restrictions and labeling.
- Endangered Species Act issues/workshop: Culpepper
  - WSSA ESA Workshop: Jan. 13 from 1 – 4 pm E.S.T.
    - Covering agency roles and descriptions of work, and future workshops
    - Role of WSSA

OTHER BUSINESS

- PPDC: Asmus approved for 3rd term
  - Workgroup on pesticide label reform
- WSSA Weed Research Priorities survey – distribution coming soon!
  - Dan Brainard/Rebecca Champagne/E6 Committee have taken all feedback and improved the survey.
  - We were limited in the types of questions/question logic we could use in Survey Monkey – Dan created the survey in Qualtrics through MSU and just received final IRB approval.
  - E6 committee is meeting soon and then the survey will be sent out
  - This longer survey will go out to the membership; a condensed version of the survey will be created and sent out to other stakeholder groups in the near future.
- Science Policy Fellows: applications for 2022
  - Tentative deadline for applications will be in April; more info to come.

February 16, 2022

AGENDA

- **Welcome new member: Darrin Dodds- SWSS President.**
  - Past presidents (Harlene, Clete) and Science Policy Fellows (Rebecca, Devon) will rotate off after WSSA meeting. Caren will remain on as Public Awareness Committee chair.
- **USDA Technical Advisory Group (TAG) for Biological Control Agents of Weeds**: Paul Tseng

- 3 petitions last year
    - 1 recommendation provided already (field bindweed; positive response)
        - USDA in Montana – testing multiple biological agents
    - 2 pending
        - Targeting ox-eye daisy control (US/Canada collaboration)
        - Targeting tree-of-heaven with snout weevil (VA Tech scientist)
- Annual meeting April 26-28; Location TBD
- Quarterly meeting was on January 20th

- **Smart sprayers/targeted weed management policy** – William Patzoldt, Blue River Technology
    - John Deere is about commercialize See and Spray
        - Green on green capabilities
    - Joint trials w/ chemical companies in 2022
    - Are labels ready for a smart sprayer? Growers' ability to interpret labels?
    - Target applications! Not spot spray!
    - Need for common language on labels
        - Rate per unit area
        - Could you apply at a higher rate since less than an acre area? Maybe
    - Autonomous sprayers – who is the licensed applicator?
    - Who needs to have these conversations with the EPA?
        - Need to determine consistent language
        - Don't leave room for interpretation on rates, app #'s, etc.
    - No official language on this with FIFRA
    - Can guidance documents be sent to companies for developing labels?
    - Timely action is needed

- **Endangered Species Act/weed management issues:** Cameron Douglass – USDA OPMP
    - New policy, EPA undertaking ESA decisions
    - EPA is trying to reach a no effect result
        - If EPA can't reach, it must open up conversations with agencies to create a plan. No use in the meantime
        - Can off-label some counties to get around this
    - EPA biological evaluations (BEs) released for atrazine, simazine, and glyphosate last fall. Now awaiting BIOPs from FWS/NMPS. Could take over a year.
    - Feedback from WSSA will be needed
    - Create a working group for ESA issues? Need for realistic herbicide use data and patterns. Need for toxicity data on better surrogates for ESA species
- **EPA Liaison:** Mark VanGessel
    - No report
    - Need for better understanding of labels
- **USDA NIFA Fellow:** Lee, on behalf of Jim Kells
    - Two webinars are planned for March 22 and March 29, which will focus specifically on NIFA grant programs where proposals involving weeds could be competitive. A total of seven NIFA National Program Leaders and one National Science Liaison have agreed to present in the webinars. This will be an in-depth discussion of both traditional weed science programs (the first two presenters each week) and funding programs where there are opportunities for weed scientists to get involved (such as climate, precision technologies, etc.).
- **FY 2022/2023 Appropriations priorities**

- IR-4 Project funding at $25M (from $11.9M in FY 21)
- Crop Protection and Pest Management (CPPM) at $25M (from $20M in FY 21)
- Army Corps Aquatic Plant Control Research Program at $10M (from $7M in FY 21)
- DOT Invasive Plant Elimination Program at $50M (2021 Infrastructure Bill – new). Points of contact in DOT/FHWA on invasive species issues: Richard.Darden@dot.gov and Daniel.Buford@dot.gov
    - **SEC. 11522**. **Invasive Plant Elimination Program**. Federal-Aid Highways. **$250 million total**, $50 million per year for FY 2022 thru FY 2026. The DOT Secretary, through the Federal Highway Administration "shall carry out a program to provide grants to States to eliminate or control existing invasive plants or prevent introduction of or encroachment by new invasive plants along and in areas adjacent to transportation corridor rights-of-way". The term ''invasive plant'' means a nonnative plant, tree, grass, or weed species, including, at a minimum: cheatgrass, Ventenata dubia, medusahead, bulbous bluegrass, Japanese brome, rattail fescue, Japanese honeysuckle, phragmites, autumn olive, Bradford pear, wild parsnip, sericea lespedeza, spotted knapweed, garlic mustard, and **palmer amaranth.**

- **2023 Farm Bill priorities**
    - Amend definition of a "plant pest" under the Plant Protection Act by changing "parasitic plant" to "noxious weed".
    - Establish a cost-share program to implement the Certified Weed Free Products Program
    - Add "invasive species" as a key problem of national significance eligible for funding by the Foundation for Food and Agriculture Research (FFAR)
    - Add language to the Conservation Reserve Program (CRP) that provides incentives for land managers to prevent and control noxious weeds and invasive species.

- **2022 National Invasive Species Awareness Week (NISAW), www.nisaw.org**
    - Monday, February 28th at 10:00 am central – USGS Decision Science – Modeling and Structured Decision Making
    - Tuesday, March 1st at 11:00 am central – Climate Change and Invasive Species
    - Wednesday, March 2nd at 11:00 am central – Protect the Uninfested West from Aquatic Invasive Species
    - **Thursday, March 3rd at 10:00 am central** – Managing the Hydrilla River Infestation in the Connecticut River (Important APMS issue! Many thanks to Mark Heilman for his work)
    - Thursday, March 3rd at 12:00 pm central – Pacific Green Crab Management
    - Friday, March 4th at 11:00 am central – Firewood Rules, Certifications, and Recommendations across the USA

Other Business

- **ISAC Nominations**- Jacob Barney (WSSA) and Rob Richardson (APMS). Due March 28.
- **2022 Weed Science Society Presidents Congressional Visits**. Dependent on FY 2023 president budget
- **2021 Weed Science Policy Fellows** – Rebecca Champagne & Devon Carroll. Thanks! We will advertise for next Policy Fellows after WSSA meeting and have an application deadline of April 8, 2022
- **National Weed Survey**- 2021 data and results summary posted: https://wssa.net/wssa/weed/surveys/ 2022 weed survey in broadleaf crops, fruits, & vegetables will go out around Memorial Day
- **Weed Research Priorities survey**: https://msu.co1.qualtrics.com/jfe/form/SV_25I55Z3zm70jNs2