WASHINGTON REPORT
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2024 Survey of the Most Common and Troublesome Weeds in Aquatic and Non-Crop Areas
We would greatly appreciate your participation in the 2024 Survey of the Most Common and Troublesome Weeds in **Aquatic and Non-Crop Areas** in the U.S. and Canada. https://www.surveymonkey.com/r/KDQJFQS.

EPA Adding Ecological Mitigation Menu to Certain to Pesticide Labels to Reduce Runoff

What is the ecological mitigation menu*?* The EPA Office of Pesticide Programs (OPP) hosted a webinar on June 18, 2024 to introduce their mitigation menu webpage (https://www.epa.gov/pesticides/mitigation-menu). The mitigation measures listed on the menu are designed to reduce pesticide movement out of a treated field due to runoff or erosion and will be part of future Federal Insecticide Fungicide Rodenticide Act (FIFRA) registration and registration review decisions. The mitigation measures presented on this website currently reflect the FIFRA Interim Ecological Mitigation (IEM) effort. Some proposed interim decisions for insecticides (e.g. dimethoate, dicrotophos) and the herbicide L-glufosinate have already incorporated interim ecological mitigation measures and we may see these mitigation measures proposed for herbicides. EPA decisions that propose label directions referencing EPA's runoff/erosion mitigation menu website can be found on www.regulations.gov .

Are ecological mitigation measures the same thing as endangered species act mitigation strategies? The ecological mitigation measures are the first step in protecting endangered species. The EPA is incorporating ecological mitigation measures on labels using FIFRA regulations to protect nontarget species including endangered and threatened species. The EPA Workplan Update of November 2022 (https://www.epa.gov/system/files/documents/2022-11/esa-workplan-update.pdf) explained that they are using the FIFRA process to add additional mitigation measures to help the EPA compliance in the future with the Endangered Species Act (ESA). By adding these mitigation measures the EPA is reducing its legal vulnerability and providing farmers access to pesticides while the ESA review process takes place between multiple federal agencies (e.g., EPA, Fish and Wildlife Service, National Marine Fisheries Service, and USDA).

How do the ecological mitigation measures affect herbicide use? Some pesticides have the potential to move with water or soil off the treated field and may pose an environmental risk to adjacent areas. Following the mitigation requirements will permit use of the pesticide and allow the user flexibility in selecting ways to protect the environment. Pesticides with environmental

concerns will have directions on the label directing the user to the mitigation menu website for a description of when mitigation measures are needed, and will provide a list of options to select from. The mitigation menu is on a website to allow rapid updating of new practices as additional data come into OPP. EPA intends to update this mitigation menu website annually in the fall so pesticide users can review any changes and prepare for the next growing season.

Who will be impacted? Not all users will be required to use additional runoff/erosion mitigation. Check the FIFRA Section 3 product label first. (Types of FIFRA pesticide registrations (i.e. Section 3, 5, 18, 24) https://www.epa.gov/pesticide-registration/types-registrations-under-fifra). Some pesticide labels contain a "Runoff/Erosion Mitigation" section which lists specific measures to reduce runoff/erosion concerns. Initially, only counties with high runoff vulnerability (**Figure 1**) will be subject to the mitigation measures described on the website. The mitigation menu website has two files one with the list of counties with high runoff vulnerability and a second file lists counties with reduced runoff vulnerability. Areas with very low, low, and medium runoff vulnerability are currently **not** subject to additional mitigation.

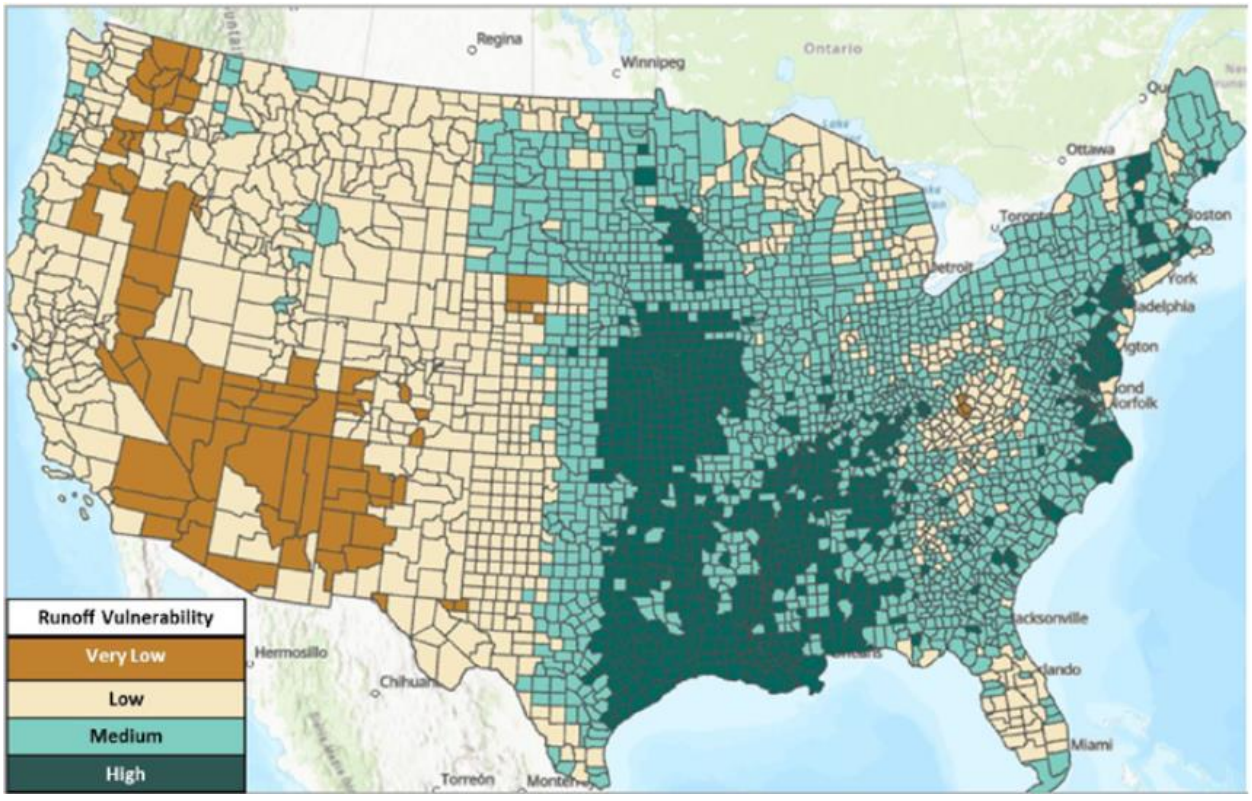

Figure 1. Runoff vulnerability at the county level. Only counties in the high (dark green) category will need additional runoff/erosion mitigation at this time.

Exceptions: In counties with high (dark green) runoff potential, runoff/erosion mitigation for interim environmental mitigation decisions are not required if any one of the following six parameters occur or can be met.

1. The soil in the application area is over 50% sand, a loamy sand, or sandy loam soil.
2. The application area has a slope of ≤ 3%.
3. The application is a partial field treatment (i.e., banded application, spot treatment, or backpack/handheld/precision sprayer application).
4. The application is incorporated via irrigation or as a soil incorporation.
5. The treated field has subsurface or tile drains installed with controlled drainage.
6. The treated field has a perimeter berm system.

***What are examples of ecological mitigation measures that I might have to use*?** If the application site is in a county with high runoff vulnerability and none of the field conditions or application parameters apply then you must choose at least one of the mitigation measures listed on the website if directed by the label. The number of measures required may vary based on pesticide and the county where the field is located. There are 20 different mitigation measures currently listed and described on the website.

- Contour farming
- Contour farming with in-field vegetation (e.g., contour buffer strips, contour strip cropping)
- Vegetative barriers
- Cover cropping/continuous ground cover
- Vegetative filter strip (20 ft minimum width, in-field or field-adjacent)
- Alley cropping
- Strip cropping
- Irrigation water management, including:
    - Center pivot, overhead sprinklers, flood, and furrow irrigation with runoff reducing technology (e.g., soil moisture sensors or evapotranspiration meters)
    - Micro irrigation (e.g., aboveground drip tape, drip emitters, or micro sprinklers)
    - Subsurface irrigation
- Mulching with natural materials
- Reduced tillage or no-tillage
- Terrace farming
- Reservoir tillage
- Erosion barriers (e.g., wattles)
- Riparian buffer zone
- Field border
- Grassed waterway
- Vegetative drainage ditch
- Constructed wetland

- Tailwater return systems
- Water retention systems (e.g., retention ponds, sediment basins)

Why is this a different website than Bulletins Live! Two? This mitigation menu is currently part of the FIFRA registration review process and the Interim Ecological Mitigation (IEM) effort. Bulletins Live! Two is part of the Endangered Species Act process. In the future, the EPA expects to expand the mitigation menu website to include mitigation options to protect endangered species under the Endangered Species Act (ESA) but currently this applies to interim environmental mitigation decisions under FIFRA.

What will we see in the future? Under FIFRA, EPA is proposing runoff/erosion mitigation measures to reduce the environmental impact of pesticides. EPA plans to use similar mitigation measures to protect endangered species. The ecological mitigation presented on this website currently reflects the FIFRA IEM effort, however, EPA intends to revise the ecological mitigation to reflect updates as its strategies to further endangered species protection are finalized, and as additional data on mitigation are submitted to the agency.

Note- A special thank you to **Bill Chism**, WSSA Endangered Species Act chair for compiling this information and his tireless work on these issues. Bill can be reached at carlysbarn@gmail.com; 301-351-3852. Also, many thanks to the members of WSSA's ESA Committee for their comments and edits: Stanley Culpepper, Cameron Douglass, Leah Duzy, Aaron Hager, Brad Hanson, Carroll Moseley, Taylor Randell-Singleton, Emily Unglesbee, Mark VanGessel, Frank Wong, Nicole Zinn, Sarah Chu and Daewon Koo.

WSSA Endangered Species Act webpage: https://wssa.net/endangered-species/

Meet the 2024-2025 Science Policy Fellows

Sarah Ann-Drumm Chu

Sarah is a third-year PhD Student at Texas A&M University studying under Dr. Muthukumar Bagavathiannan. Sarah's dissertation project is focused on developing methods to practice harvest weed seed control in cotton in addition to testing a new possible form of harvest weed seed control that uses blue light and mid-infrared wavelength. She received her B.S. in a dual degree of Horticulture and Agronomy at Michigan State University while working as an undergrad research assistant to Dr. Don Penner, where she was first exposed to weed science. She then earned a M.S. at Michigan State University under Dr. Erin Burns. Sarah has made strides to work on her science communication skills through the Foundation for Food and Agriculture Fellowship, allowing her to participate in congressional visits day to advocate for agricultural research. This training and congressional visits day launched her to pursue an application to the

Weed Science Policy Fellowship, where she looks forward to engaging in conversations about agriculture research funding.

Joshua Miranda

Joshua is a Ph.D. Candidate at Oregon State University under the supervision of Dr. Marcelo Moretti, where he studies a critical issue in hazelnut production: herbicide resistance in weeds.

Joshua's research efforts involve conducting extensive field trials and employing both basic and applied research methodologies to understand weed dynamics and the mechanisms underlying herbicide resistance. Through his work, Joshua aspires to bridge the gap between scientific research and practical application, ensuring that innovations in weed management are accessible and beneficial to farmers, agricultural stakeholders, and the broader community. Joshua is very excited about the opportunity to be a Science Policy Fellow and is committed to making a positive impact on agriculture, farming communities, and the environment. His goal is to contribute to the committee by informing and shaping policies that promote sustainable agricultural practices and effective weed management strategies. Joshua is grateful to the WSSA and Science Policy Committee for providing him with this invaluable learning opportunity.

<u>Weed Science Presidents Travel to DC to Promote Ag Research Funding</u>

During the week of May 6 – 9, five weed science society presidents visited Washington DC to advocate for federal agriculture research funding. They also attended the National Coalition for

From L to R: Lee Van Wychen, Executive Director of Science Policy; Dawn Refsell, NCWSS President; Todd Baughman, SWSS President; Tim Prather, WSWS President; Greg Dahl, WSSA President; and Erin Hitchner, NEWSS President

Food and Agricultural Research (NCFAR) annual meeting, which provided a great overview of federal agriculture spending and priorities. We also heard from USDA's Deputy Under Secretary for Research, Education, and Economics (REE), Sanah Baig and from the main House and Senate Ag Committee staff working on the Research Title in the Farm Bill. This included:

Brandon Honeycutt with Senate Ag Committee Chairwoman Debbie Stabenow
Jeremy Witte, with Senate Ag Committee Ranking Member John Boozman
Ricki Schroeder, with House Ag Committee Chairman G.T. Thompson
Emily Pliscott, with House Ag Committee Ranking Member Austin Scott

We visited 25 Congressional offices to discuss our top priority issues: 1) to restore funding for the USDA Crop Protection & Pest Management (CPPM) program and 2) increase funding for the IR-4 program.

1. Support the USDA NIFA Crop Protection and Pest Management (CPPM) program at $21 million in FY 2025. The President's Budget Request for FY 2025 slashed this program by 85% to $3 million. The CPPM was funded at $21 million in both FY 2023 and FY 2024. The CPPM tackles real world weed, insect, and disease problems with applied solutions through the concepts of integrated pest management (IPM). The CPPM funds Extension IPM personnel as well as a competitive IPM grants program.

2. Support the USDA NIFA IR-4 Project funding at $25 million in FY 2025. The IR-4 Project was funded at $15 million in FY 2024. The President's Budget Request for FY 2025 is $15 million. There is a phenomenal need for specialty crop research and pest management solutions. The IR-4 Project conducts research and develops the data needed to facilitate the registration of crop protection products, including reduced risk and bio-based pesticides, for major food crops such as fruits and vegetables, as well as herbs, spices, ornamental plants and other horticultural crops. The IR-4 Project provides an incredible return on investment as it contributes $8.97 billion to the annual U.S. GDP.

The Congressional visits were very successful. The House Appropriations Committee has restored the USDA NIFA CPPM program funding to $21 million for FY 2025 and it appears the Senate will also do the same. The House Appropriations Committee also provided a $750,000 increase for the IR-4 Program for FY 2025. We are waiting to see what Senate Appropriations Committee will do, but any increase in funding in this very difficult fiscal year is very much welcomed.

We also met with several other agricultural groups, including the National Alliance of Independent Crop Consultants (NAICC) and the National Farmers Union (NFU). One of the outcomes of those meetings is a tour that is being planned for EPA and FWS staff to review ESA issues. The tour is being co-sponsored by WSSA and NAICC during September 3-5 in Wisconsin. We will discuss mitigations for endangered species like the Massasauga Rattlesnake and the Rusty Patched Bumble Bee, view the unique challenges posed by the Central Sands hydrology and irrigated potato production, and view IPM practices being used in cranberry production.

Finally, the group will tour the Winfield United Innovation Center in River Falls to the latest research in spray drift reduction technologies.

Steve Mirsky (back to camera) a weed scientist and research ecologist with USDA-ARS in Beltsville, MD, discusses the research involved in developing a weed image database for use in artificial intelligence and robotic precision sensor equipment. Todd Baughman (2nd from right) and Greg Dahl (4th from right) attended this NCFAR event on May 6. We also got to spend the day with USDA NIFA Director Dr. Manjit Misra (5th from right) touring various USDA ARS and University of Maryland agricultural research projects.

I want to personally thank each of the Weed Science Society presidents for their professionalism and leadership. Not to mention taking the time from their busy schedules to travel to Washington DC. I can assure you that each of their societies is well represented!

Weed Science Societies Support the Use of DRAs for ESA Mitigations

The six National and Regional Weed Science Societies sent a letter to EPA supporting the addition of Drift Reduction Adjuvants (DRAs) to the list of mitigation options available to pesticide users for Endangered Species Act (ESA) compliance. EPA's Draft Herbicide Strategy does not currently list DRAs as a tool to reduce spray drift and run off, even though DRAs are used on over 100 millions acres every year.

The letter from the six Weed Science Societies supports a letter sent earlier this year on the same topic from many other stakeholder groups, including the Council of Producers & Distributors of Agrotechnology (CPDA), CropLife America (CLA), and the National Alliance of Independent Crop Consultants (NAICC). EPA has responded favorably to our request and we hope they include DRAs as a mitigation option in their Final Herbicide Strategy for ESA that is expected by August 30, 2024. The Weed Science Societies letter is at: https://wssa.net/2024/07/national-and-regional-weed-science-societies-support-drift-reduction-adjuvants-dras-as-mitigation-options-for-endangered-species-act-esa-compliance/

EPA Increases Atrazine CE-LOC From 3.4 to 9.7 µg/L

On July 7, the U.S. Environmental Protection Agency (EPA) announced an update to the level at which atrazine is expected to adversely affect aquatic plants. The new revised atrazine

concentration of 9.7 micrograms per liter (µg/L), which was derived following an August 2023 FIFRA Science Advisory Panel (SAP) peer review, will be used to develop a revised regulatory decision to help protect aquatic plants as well as fish, invertebrates, and amphibians. Many thanks go to Jay Ferrell, John Madsen and Kurt Getsinger for their service on the FIFRA SAP.

The level at which atrazine is expected to adversely affect aquatic plants is also known as the concentration-equivalent level of concern or CE-LOC. Included in this announcement is an EPA memorandum that provides details on updates to EPA's database of aquatic plant community studies and revised exposure modeling. Also included is an updated map that shows where the level of concern is expected to be exceeded. Collectively, these updates resulted in the removal of millions of acres of land from the 2022 map of watersheds that were expected to exceed the level of concern and added a much smaller number of acres in other areas of the country. Later this year, EPA plans to update its 2022 atrazine mitigation proposal to reflect the revised level of concern and the corrections to the exposure modeling, as well as to incorporate feedback received during the 2022 public comment period. EPA will take public comment on the revised mitigation proposal and also release a response to comments on the 2022 proposed revisions to the interim decision at that time.

Farm Bill Advances in the House, But Still Waiting on the Senate

The House Committee on Agriculture passed their version of the next Farm Bill on May 24, 2024. However, the Senate Agriculture Committee has yet to release their full draft of a Farm Bill. It appears that another one-year extension of the 2018 Farm Bill may be necessary if the House and Senate cannot get their bills passed before the August recess for Congress.

Some notable provisions included in the House Farm Bill:

- Reauthorizes the Agriculture and Food Research Initiative (AFRI) to continue as a competitively awarded research grant program through FY 2029 and adds additional topics to the scope of eligible research.
- Provides $2.5 billion in mandatory funding for a competitively awarded agriculture research facilities grant program.
- Mandates $100 million in funding for student scholarships at land-grant colleges and universities.
- Directs USDA to establish at least 15 Centers of Excellence, which were previously authorized to receive priority for funding. Changed the eligible areas of focus to include aquaculture, biosecurity, biotechnology, invasive species, water quality, and other topics.
- Expands the scope of the High-Priority Research and Extension Initiative grant program by adding research on rangeland, tropical plant health, invasive species, biochar, soil health, microplastics and PFAS impacts on farmland, and wildfire smoke exposure on crops.

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Meetings of the National and Regional Weed Science Societies

Jul. 14 - 18, 2024 Aquatic Plant Management Society (APMS), St. Petersburg, FL www.apms.org
Dec. 1 – 4, 2024 International Weed Science Society (IWSS), Jerusalem, Israel www.iwss.info
Dec. 9 - 12, 2024 North Central Weed Science Society (NCWSS), Kansas City, MO www.ncwss.org
Jan. 6 - 10, 2025 Northeastern Weed Science Society (NEWSS), Annapolis, MD www.newss.org
Jan. 20 - 23, 2025 Southern Weed Science Society (SWSS), Charleston, SC www.swss.ws
Feb. 24 - 27, 2025 Weed Science Society of America (WSSA), Vancouver, BC www.wssa.net
Mar 10-13, 2025 Western Society of Weed Science (WSWS), Seattle, WA www.wsweedscience.org