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Lee Van Wychen

WSSA Alert: Unsolicited Seeds? Don't Plant Them!

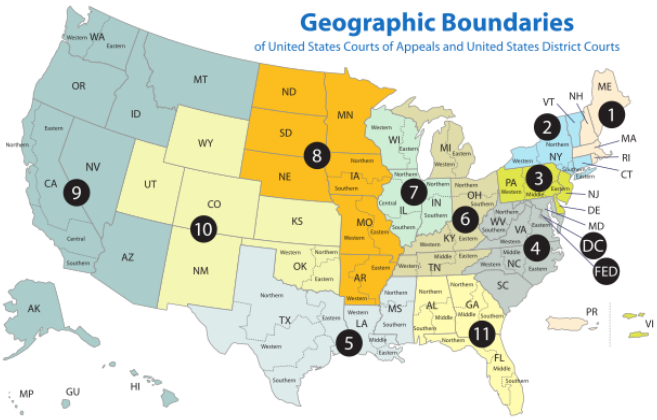
Have you received unsolicited packages of seed in the mail? If so, you're not alone. People from across the U.S. and Canada are reporting receipt of seeds they didn't order that appear to be coming from China.

Though you may be tempted to plant them, both government officials and weed scientists strongly advise against doing so. You may be spreading invasive weed species that could threaten our agriculture and environment.

Authorities have already discovered packets containing seeds for dodder (*Cuscuta L.*) and Chinese waterspinach (*Ipomoea aquatica*), also known as swamp morningglory. Both are on the Federal Noxious Weed list. They have also found seeds for *Sericea lespedeza*, which is listed as a noxious weed in Kansas and Colorado.

What should you do if you receive an unsolicited seed packet? The USDA's Animal and Plant Health Inspection Service (APHIS) is spearheading an investigation. They ask that you support that effort by submitting an online report and mailing the seeds to the designated USDA APHIS location in your state.

Dicamba, Enlist Duo & the Ninth Circuit Court of Appeals



The Ninth Circuit Court of Appeals, headquartered in San Francisco, is the largest of the 13 Federal Circuit Courts with 29 Appellate judges. It has been the forum for two petitions challenging the EPA's registration decisions for XtendiMax, Engenia, and FeXapan in one case and Enlist Duo in another. Petitioners in both cases were the National Family Farm Coalition (NFFC), Center for Food Safety (CFS), Center for Biological Diversity (CBD) and Pesticide Action Network North America (PANNA). The Natural Resources Defense Council (NRDC) was also a petitioner in the Enlist Duo case. EPA was the respondent in both cases and the respondent-intervenor was Monsanto in the dicamba case and Dow Agrosciences in the Enlist Duo case. The petitioners argued that EPA's registration decisions for these herbicides violated certain provisions in both the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Endangered Species Act (ESA).

Dicamba. Case No. 19-70115. The court opinion and summary is available HERE.

On June 3, a three judge panel ("**the panel**") unanimously agreed EPA violated various provisions within FIFRA and thus, vacated the registrations of XtendiMax, Engenia, and FeXapan. Because the panel's vacatur was based on its holding under FIFRA, the panel did **NOT** reach the question whether the registration decision also violated the ESA.

From the court summary: *"The panel held that the EPA substantially understated three risks that it acknowledged.*

- *First, the EPA substantially understated the amount of dicamba-tolerant (DT) seed acreage that had been planted in 2018, and, correspondingly, the amount of dicamba herbicide that had been sprayed on post-emergent crops.*

- *Second, the EPA purported to be agnostic as to whether formal complaints of dicamba damage under-reported or over-reported the actual damage, when record evidence clearly showed that dicamba damage was substantially underreported.*

- *Third, the EPA refused to estimate the amount of dicamba damage, characterizing such damage as "potential" and "alleged," when record evidence showed that dicamba had caused substantial and undisputed damage.*

The panel also held that the EPA entirely failed to acknowledge three other risks.

- *First, the EPA failed to acknowledge record evidence showing the high likelihood that restrictions on over-the-top (OTT) dicamba application imposed by the 2018 label would not be followed.*

- *Second, the EPA failed to acknowledge the substantial risk that the registrations would have anticompetitive economic effects in the soybean and cotton industries.*

- *Third, the EPA failed to acknowledge the risk that OTT dicamba use would tear the social fabric of farming communities."*

Following the court's ruling, Bayer, BASF and Corteva filed separate petitions asking for an "en banc" review of the case, but those petitions were denied by the 9th Circuit Court in August. A final appeal to the Supreme Court is the last appeal option. Members of the weed science societies remain focused and committed on getting EPA the best available scientific data so that EPA can make a science-based decision this fall.

Enlist Duo. Case No. 17-70810. The court opinion and summary is available HERE.
On July 22, a three judge panel ("**the panel**") ruled in favor of EPA by rejecting three of the four arguments from the petitioners that the Enlist Duo registration violated FIFRA. The one provision of FIFRA where the panel agreed with the petitioners was that EPA failed to assess

harm to monarch butterflies when milkweed was controlled in **target fields**. (More on this below).

From the court summary in regards to FIFRA violations:

- *The panel rejected the argument that EPA failed to consider that Enlist Duo would increase the use of glyphosate over time. The panel held that substantial evidence supported EPA's conclusion that neither the initial 2014 registration of Enlist Duo – nor the subsequent approvals for new use – will increase the overall use of glyphosate.*

- *The panel rejected petitioners' contention that EPA failed to properly consider 2,4-D's volatility – i.e., its tendency to evaporate into a gas and drift to non-target plants. The panel held that EPA reasonably relied on studies to support its conclusion that the volatility of 2,4-D choline salt will not cause on unreasonable adverse effects on the environment. Accordingly, substantial evidence supported EPA's findings.*

- *The panel rejected NFFS petitioners' contention that EPA should have accounted for the potential synergistic effect of mixing Enlist Duo with a different chemical called glufosinate. The panel held that this concern was speculative.*

- *The panel agreed with petitioners that EPA failed to properly assess harm to monarch butterflies from increased 2,4-D use on milkweed in **target fields**. The panel held that given the record evidence suggesting monarch butterflies may be adversely affected by 2,4-D on **target fields**, EPA was required, under FIFRA, to determine whether any effect was "adverse" before determining whether any effect on the environment was, on the whole, "unreasonable." The panel concluded that EPA's failure to do so meant that its decision was lacking in substantial evidence on the issue.*

As to the impact on the monarch butterfly population, the NRDC argued EPA should have considered how the destruction of milkweed on **target fields** would affect monarch butterflies. EPA acknowledged that it did not assess those risks because it was not required to do so. **Farmers will control milkweed on their crop fields through the use of herbicides or other means such as cultivation, with or without Enlist Duo.**

> "*Despite the intuitive appeal of EPA's argument, we (the three judge panel) must reject it. EPA did not assert this rationale as a reason for declining to assess the destruction of milkweed on **target fields**, so neither can we. Moreover, even had EPA asserted such a rationale, it would likely be premised on legal error. **That milkweed would likely be targeted in the same ways even absent Enlist Duo's registration suggests that registering Enlist Duo may not be "unreasonable" under FIFRA.** But it says nothing about whether an effect would be "adverse." Given the record evidence suggesting monarch butterflies may be adversely affected by 2,4-D on target fields, EPA was*

required, under FIFRA, to determine whether any effect was "adverse" before determining whether any effect on the environment was, on the whole, "unreasonable." EPA's failure to do so means that its decision was lacking in substantial evidence on this issue."

The three judge panel also ruled on the question of whether EPA violated any provisions of the **Endangered Species Act (ESA)** in registering Enlist Duo. Two of the three judges on "the panel" rejected the petitioner's arguments that EPA violated the ESA. The lone dissenting judge held that EPA violated the ESA by failing to use the best scientific data to assess whether Enlist Duo would adversely affect threatened or endangered species.

From the court summary in regards to ESA violations:

- *First, the panel rejected NFFC petitioners' challenge to EPA's "no effect" findings for plants and animals. The panel held that the EPA did what the ESA required it to do: assess risks to determine whether the exposure of protected species and critical habitat to potentially harmful chemicals would have any possible effect. The panel concluded that EPA's ultimate "no effect" findings, and adoption of mitigation measures, were not arbitrary, capricious, or contrary to law.*

- *Second, the panel rejected NFFC petitioners' argument that EPA's rationale for limiting the "action area" to the treated field was not sound. The panel accorded deference to the EPA in the way it chose to define the action area.*

- *Third, the panel rejected NFFC petitioners' argument that EPA violated its duty to insure no "adverse modification" of "critical habitat" by relying on its 2016 risk assessment.*

The end result of all this is that the registration of Enlist Duo stands and that EPA has to "address the evidence that monarch butterflies may be harmed by the destruction of milkweed on **target fields**." The panel did note that EPA's error in failing to consider harm to monarch butterflies caused by killing **target milkweed** was not "serious".

<u>Weed Science Provisions in FY2021 House Ag Appropriations Bill</u>

The FY 2021 House Ag Appropriations bill includes a number of good weed science provisions in addition to increases in funding for the IR-4 Program and the AFRI competitive grants program. Funding for the IR-4 program has been stuck at $11.9 million for over a decade. We've been working to highlight the great work the program does and its value to the economy, so it was great to see the House Ag Appropriations Committee propose funding of $15 million for FY 2021. Funding for the ag experiment stations (Hatch Act), university extension (Smith-Lever) and the Crop Protection & Pest Management (CPPM) program remain the same as the FY 2020 funding.

Weed Science Research .—The House Ag Appropriations Committee "*supports the establishment of a National Program Leader dedicated to Weed Science Research and Management in the USDA National Institute of Food and Agriculture (NIFA)*".

Areawide Integrated Pest Management (AIPM) in NIFA. There are many strengths to effective AIPM projects, such as TEAM Leafy Spurge and TAME Melaleuca, but funding has only been available through USDA-ARS. We've been trying to get AIPM funding established in NIFA for several years. The House Ag Appropriations Committee "*supports the development and implementation of areawide integrated pest management (AIPM) projects and directs NIFA to establish within CPPM an organizational framework and funding plan to implement AIPM projects that are to be planned in coordination with ARS, APHIS, and other federal agencies and implemented by cross-institutional teams, including farmers, ranchers, and land managers, at the local level*."

Tropical and Subtropical Weed Research.—The House Ag Appropriations Committee "*directs ARS to coordinate with NIFA, the Forest Service, APHIS, and the USDA Climate Hubs to provide to the Committees on Appropriations of both Houses of Congress not later than 180 days after the enactment of this Act a report on research relevant to and efforts to assist Hawaii, Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, and the Northern Mariana Islands … in land and forest resource management … and biology and control of invasive insects, plant diseases, and weedy plant species, and the development of integrated pest management strategies to control them"*.

Cogongrass. Of the 88 terrestrial weeds listed on the Federal Noxious weed list, cogongrass is arguably one of the most widespread. The House Ag Appropriations Committee "*continues to provide $3,000,000 for APHIS to partner with state departments of agriculture and forestry commissions in states considered to be the epicenter of infestations, to assist with control and treatment of cogongrass in order to slow the advancing front of this invasive plant-pest species and its impact on forest productivity, wildlife habitat, and private landowners*."

Parag Chitnis is NIFA Acting Director

Dr. Parag Chitnis is serving as Acting Director of USDA-NIFA upon the departure of Dr. Scott Angle in July who became Vice President of Agriculture and Natural Resources at the University of Florida in Gainesville. Dr. Chitnis was named Associate Director for Programs earlier this year and leads implementation of NIFA's approximately $1.7 billion research programs. Prior to joining NIFA, he was a research administrator at the National Science Foundation (NSF) – Division of Molecular and Cellular Biosciences, a professor in the Department of Biochemistry, Biophysics, and Molecular Biology at Iowa State University, and an assistant professor in the Division of Biology at Kansas State University. Chitnis has a B.S. in botany/plant breeding from the Konkan Agricultural University in India, an M.S. in genetics/biochemistry from the Indian Agricultural Research Institute, and Ph.D. in biology from UCLA.

USDA-NIFA Establishes Two Artificial Intelligence Research Institutes

Two artificial intelligence (AI) research institutes are being created by USDA-NIFA with a $20 million investment in each to expand artificial intelligence research in farming and food processing over the next five years. NSF also announced the creation of five AI institutes. More institute announcements are anticipated in coming years. USDA's two AI institutes are:

> **Future Agricultural Resilience, Management and Sustainability**: This AI institute will be led by a team at the University of Illinois at Urbana-Champaign and will advance AI research in computer vision, machine learning, soft object manipulation, and intuitive human-robot interaction to solve major agricultural challenges including labor shortages, efficiency and welfare in animal agriculture, environmental resilience of crops, and the need to safeguard soil health. The institute features a new joint Computer Science + Agriculture degree and global clearinghouse to foster collaboration in AI-driven agriculture research.
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> **Next Generation Food Systems**: This AI institute will be led by a team at the University of California, Davis, integrates a holistic view of the food system with AI and bioinformatics to understand biological data and processes, addressing issues of molecular breeding to optimize traits for yield, crop quality, and pest/disease resistance; agricultural production; food processing and distribution; and nutrition. Major emphasis is on inclusive education and outreach approaches to build a diverse, next-generation workforce.

1,172 Farmers Participate in National Cover Crop Survey

The 2019-2020 National Cover Crop Survey, conducted by the non-profit Conservation Technology Information Center (CTIC), with financial support from the Sustainable Agriculture Research and Education (SARE) program and the American Seed Trade Association (ASTA) includes perspectives from 1,172 farmers representing every state. This survey was the first to include detailed exploration of **planting green**—a tactic employed by 52% of the respondents—as well as crop insurance use among cover croppers and the impact of cover crops on the profitability of horticultural operations. The USDA Census of Agriculture has reported a 50% increase in cover crop acreage over the five-year period between 2012 and 2017. Details of the 2019-2020 survey can be found at: www.sare.org/covercropsurvey

"Anti-FIFRA" Legislation Opposed in House, Senate

In August, Sen. Tom Udall (NM) and Rep. Joe Neguse (CO) introduced legislation (H.R. 7940 and S. 4406) that would drastically amend the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and jeopardize the continued innovation and availability of pesticide products. The legislation would impose a politically driven process that would remove pest control options and undermine the science-based standards contained within FIFRA.

The legislation would ban organophosphate, neonicotinoid and paraquat pesticides, create a petition process to EPA for individual citizens, and alter the process for emergency exemptions,

among other changes. In addition, the bills would enable local communities to enact policies without being vetoed or preempted by state law.

The National and Regional Weed Science Societies are **opposed to this legislation** and joined more than 300 other agriculture and conservation organizations in a letter to all members of the House and Senate affirming our support for FIFRA.

EPA Announces Interim Re-registration Decisions for Triazines

In September, EPA announced the interim re-registration decisions for atrazine, propazine and simazine. Details are available here. EPA is requiring the following mitigation measures:

- Reducing the maximum application rate for atrazine and simazine when used on residential turf in order to protect children who crawl or play on treated grass
- Adding a requirement for irrigation immediately after simazine application to residential turf
- Requiring additional personal protective equipment for workers who apply atrazine and simazine to reduce occupational risks associated with certain uses
- Finalizing label requirements for all three triazines to include mandatory spray drift control measures, to minimize pesticide drift into non-target areas, including water bodies
- Finalizing label directions for herbicide resistance to reduce the problem of weeds becoming resistant to atrazine

The reregistration announcement is interim because the triazines must still undergo an Endangered Species Act review. As part of this, the draft biological evaluations for the triazines are anticipated to be available for public comment in late Fall 2020. Final Endangered Species Determinations for each of the triazines are anticipated in 2021.

NEPA Rule Updates Should Improve Weed Management on Federal Lands

The Council on Environmental Quality (CEQ) announced a final rule July 15 to comprehensively update and modernize National Environmental Policy Act (NEPA) regulations for the first time in more than 40 years. CEQ is a division of the Executive Office of the President that coordinates federal environmental efforts in the U.S. and works closely with agencies and other White House offices on the development of environmental and energy policies and initiatives.

NEPA regulations control how the federal government processes environmental permits, but the law has often been used to block and delay federal projects and actions. More often than not, NEPA has been a roadblock to invasive species management. A classic example of this is with post-fire cheatgrass management in Wyoming. They have had several fires that burn on federal, state, and private land that is all interconnected. The state and private land owners were able to get in and treat cheatgrass within four months after the fire mitigating the potential invasion of cheatgrass onto adjoining lands. Meanwhile, it took the U.S. Forest Service four years to complete an environmental impact statement (EIS) for cheatgrass treatments, which by that time had allowed cheatgrass to invade an additional 2,000 acres and more than double its vegetation cover from before the fire.

The modernized NEPA regulations will accelerate the environmental review and permitting processes for management of our Federal lands and waters. The rule will establish a two-year limit for completion of environmental impact statements (EISs) and a one-year limit for completion of environmental assessments (EAs), and would also impose page limits.

The modernized NEPA regulations will also expand public involvement and improve coordination with States, Tribes, and Localities by requiring agencies to provide more information to and solicit input from the public earlier in the process to ensure and facilitate informed decision making by Federal agencies. The changes will also reduce duplication by facilitating use of documents already prepared by State, Tribal, and local agencies to be used by Federal agencies to comply with NEPA.

Great American Outdoors Act Signed Into Law

The Great American Outdoors Act will establish the National Parks and Public Land Legacy Restoration Fund to support deferred maintenance projects on federal lands. The National Park Service (NPS) accounts for 84 million acres of land at 400 different sites. But as of 2019, there was $11.9 billion in deferred maintenance and repairs needed. The bill will direct up to $6.65 billion to priority repairs and up to $3 billion for other agencies like the Fish and Wildlife Service, Forest Service, and Bureau of Land Management. While there are no direct provisions in the bill for invasive species management, the restoration fund will help alleviate fiscal pressures at the Department of the Interior so that invasive species funding is not redirected to maintenance projects.

The second part of the bill will permanently fund the Land and Water Conservation Fund at $900 million per year. This was definitely the more controversial part of the bill and most of the Congressmen who voted against the bill did so because of this provision. The Senate passed the bill 73 to 25 and the House passed it 310 to 107. President Trump signed it into law on August 4.

None of the funding in the bill would come from taxpayer dollars. Instead, programs would be funded by royalties from energy developments on federal lands and waters. For fiscal years 2021 through 2025, 50 percent of all energy development revenues due to the U.S. would be deposited into the National Parks and Public Land Legacy Fund, up to $1.9 billion each year.

To celebrate the signing of the bill, U.S. Secretary of the Interior David Bernhardt announced that **August 4th will be designated "Great American Outdoors Day."** Henceforth, August 4 will be recognized as an NPS holiday, which means that in future years on August 4, you can visit national parks and public lands for FREE.

2020 State Noxious Weed Seed Requirements List Updated

The Seed Regulatory and Testing Division of the USDA Agricultural Marketing Service (AMS), which enforces interstate commerce provisions of the Federal Seed Act, recently updated the state noxious weed seed list. It is available online at https://www.ams.usda.gov/rules-

regulations/fsa in two formats (PDF & Excel). The document contains information about state labeling requirements and prohibitions of noxious weed seeds, and shows the scientific names and common names according to the law and regulations of the state in which the seed is considered noxious.

Lee Van Wychen, Ph.D.
Executive Director of Science Policy
National and Regional Weed Science Societies
Lee.VanWychen@wssa.net
202-746-4686