



Endangered Species Protection: The Challenges Pesticide Users Face in 2024 and Beyond



Andrew Thostenson

NDSU | EXTENSION

Bridgette Readell





Pressured by lawsuits, EPA toughens pesticide rules to protect endangered species

U.S. agency is drawing up new rules for farmers, but some worry the science isn't ready

31 OCT 2023 ETBYERIK STOKSTAD





Policy is driven in part, by a former plaintiff

The effort is headed by Jake Li, who was appointed EPA's deputy assistant administrator for pesticide programs in 2021. Trained as a lawyer, Li worked on endangered species policy at the Environmental Policy Innovation Center and at Defenders of Wildlife, where he filed a pesticide lawsuit against the office where he now works.



“Decisions are being made before the science is ready,” says Stanley Culpepper, a weed scientist at the University of Georgia who would like to see more detailed research on where endangered species are present and their sensitivity to various pesticides.



Culpepper argues there's a need for "significant investment" in mapping endangered species. He points to a 2022 EPA decision that restricted the use of the herbicide Enlist Duo in more than 43 counties nationwide. In Georgia, where the restrictions were enacted because of concern for frosted and flatwood salamanders, the decision meant Enlist Duo could not be used on more than 385,000 hectares of cotton, corn, and soybean crops. After the decision, Culpepper worked with FWS and state agencies to more finely map the salamanders' habitat and found it was only necessary to restrict spraying on 1427 hectares.

What precipitated
all this?



In 1988, EPA
acknowledged that
pesticides must be
regulated to comply
with the ESA.

U.S. Fish & Wildlife Service

Endangered Species Act

40th Anniversary

Protecting Imperiled Plants and Animals Since 1973

EXTINCT **ESA 1973** **IMPROVING** **RECOVERED**

T I M E L I N E

Carolina Parakeet • Dusty Seaside Sparrow
Passenger Pigeon • Great Auk • Blue Pike

Indiana Bat • Polar Bear • Puerto Rican
Parrot • California Condor • Bull Trout


Whooping Crane • Black Footed Ferret
Wyoming Toad • West Indian Manatee

Bald Eagle • Grizzly Bear
Delmarva Fox Squirrel • American Alligator



1991 Voluntary ESA Bulletin for Emmons County, North Dakota

United States Environmental Protection Agency
Pesticides and Toxic Substances (H7506C)




Protecting Endangered Species Interim Measures Emmons County, North Dakota

The information in this pamphlet is similar to what the U.S. Environmental Protection Agency (EPA) expects to distribute once our Endangered Species Protection Program is in effect. The limitations on pesticide use are not law at this time, but are being provided now for your use in voluntarily protecting endangered and threatened species from harm due to pesticide use. We encourage you to use this information. We also welcome your comments.

The Endangered Species Act is intended to protect and promote recovery of animals and plants that are in danger of becoming extinct due to the activities of people. Under the Act, EPA must ensure that use of pesticides it registers will not result in harm to the species listed as endangered or threatened by the U.S. fish and Wildlife Service, or to habitat critical to those species' survival. To accomplish this, the EPA expects to implement program requirements beginning in 1993. This program will protect endangered and threatened species from harm due to pesticide use.

EPA requests your comments regarding the information presented in this publication. Please let us know whether the information is clear and correct. Also tell us to what extent following the recommended measures would affect your typical pesticide use or productivity. This information will be considered by EPA during the final stages of program development.

Please submit comments to:
Interim Endangered Species Protection Program (H7506C)
U.S. EPA
401 M Street, SW
Washington, DC 20460



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How To Use This Information

- 1) On the county map, find the specific shading patterns that cover the area where you will apply pesticides.
- 2) Read the shading key for those patterns to identify the specific area involved.
- 3) In the "Table of Pesticide Active Ingredients," locate the active ingredients in the pesticide you intend to apply.
- 4) Locate the code to the right of the active ingredient name and under the shading patterns that apply to you.
- 5) When using the pesticide, you should follow the limitations indicated for those codes described under "Limitations on Pesticide Use."
- 6) If you are applying more than one listed active ingredient or applying a listed active ingredient in an area with more than one shaded pattern (species), multiple codes may apply. If so, you should follow the most restrictive limitation.

Table Of Pesticide Active Ingredients

Active Ingredient	Shading Pattern/Code	
4-AMINOPYRIDINE (4-AP)	37	37
ALDICARB (GRANULAR)	37	-
AZINPHOS-METHYL	37	37
CARBARYL	37	37
CARBOFURAN (GRANULAR)	37	37
CHLORPYRIFOS	37	37
DIAZINON	37	37
DICROTOPHOS	37	37
DISULFOTON	-	-
ENDOSULFAN	37	37
ENDRIN	37	37
EPN	37	37
ETHOPROP (GRANULAR)	37	37
FENAMIPHOS	37	37
FENSULFOTHION	37	37
FONOFOS	37	37
ISOFPENPHOS	37	37
METHYL PARATHION	37	37
MEVINPHOS	37	37
OXAMYL	37	37
OXYFLUORFEN	37	37
PARAQUAT	37	37
PARATHION (ETHYL PARATHION)	37	37
PHORATE (GRANULAR)	37	37
TOXAPHENE (CAMPHECHLOR)	37	37
TRICHLORFON	37	37

Limitations On Pesticide Use

Code	Limitation
37	Use in shaded area is prohibited. If you feel that your situation is an you must contact the North Dakota Department of Agriculture at 224-

About This Publication

This publication contains a County Map showing the Area within the county where pesticide use should be limited to protect listed species. These areas are identified on the map by a shaded pattern. Each shaded pattern corresponds to a species in need of protection.

The Shading Key shows the name of the species that each shaded pattern represents and described the shaded area. The area may be described in terms of Township, Range, and Section or by giving details about the habitat of the species.

The first column of the "Table of Pesticide Active Ingredients" lists the active ingredients which there should be limitations on use to protect certain species. The next columns are headed by the shaded pattern of the species whose Codes listed underneath them.

The Code indicates the specific limitation that is necessary to protect the species. The section titled Limitations on Pesticide Use explains the code.

Does This Information Apply to You?


To determine whether this information applies to your use of a pesticide, review the questions below. The information applies only if you answer "yes" to both questions:


- Do you intend to use pesticides within shaded area on the county map?
 - Are any of the ingredients listed on the panel of your pesticide product label in the "Table of Pesticide Active Ingredients"?
- If you answer "yes" to both questions, you should follow the instructions on "How to Use This Information" to determine if you should limit use of the pesticide to help protect listed species.
- If you answer "no" to either question, you should follow the usage directions on the pesticide product label.

Emmons County, North Dakota



Shading Key

 **Interior least tern, *Sterna antillarum*.** Use limitations only apply within the shaded area shown on the map 1/2 mile outward from the edge of the Missouri River and Oahe Dam Reservoir.

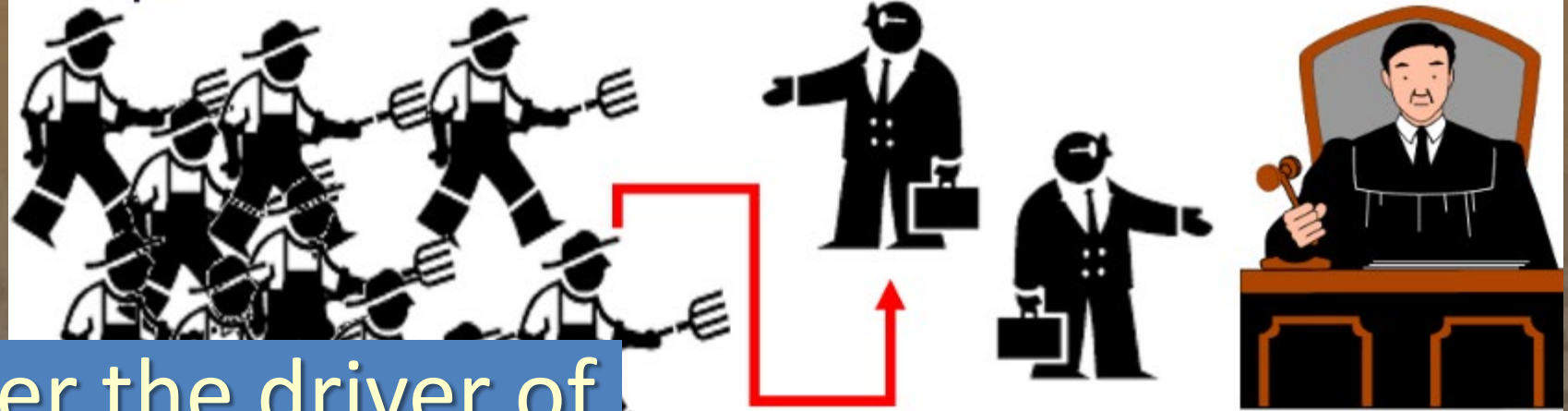
 **Piping plover, *Charadrius melodus*.** Use limitations only apply within the shaded area shown on the map outward 1/2 mile from the edge of the Missouri River and Oahe Dam Reservoir.

How the Courts Are Changing Pesticide Use Practices

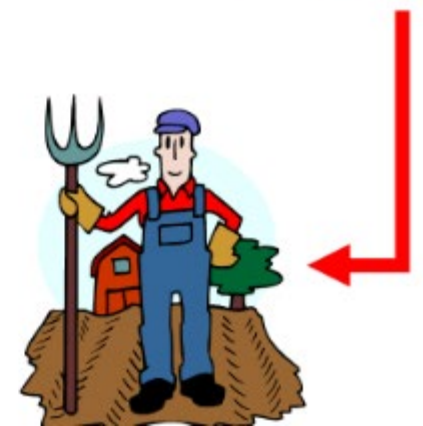
Andrew hears his first
major discussion
about ESA in 2004

Allan S. Felsot
Washington State University
Department of Entomology
Food & Environmental Quality Lab

The Rise & Fall of Control by FIFRA



FIFRA was no longer the driver of pesticide policy, the courts were





Initial ND Plan Submitted to EPA in 2008

**NORTH DAKOTA DEPARTMENT OF
AGRICULTURE**



**NORTH DAKOTA ENDANGERED SPECIES
PROTECTION PLAN FOR PESTICIDES**

Submitted to:

United States Environmental Protection Agency

- To supply the EPA with state specific information to use in risk assessments
- To provide a platform for stakeholders to offer input and recommendations
- To help plan and implement mitigation and management plans, including Endangered Species Protection Bulletin (“Bulletins”)



Endangered Species 2010

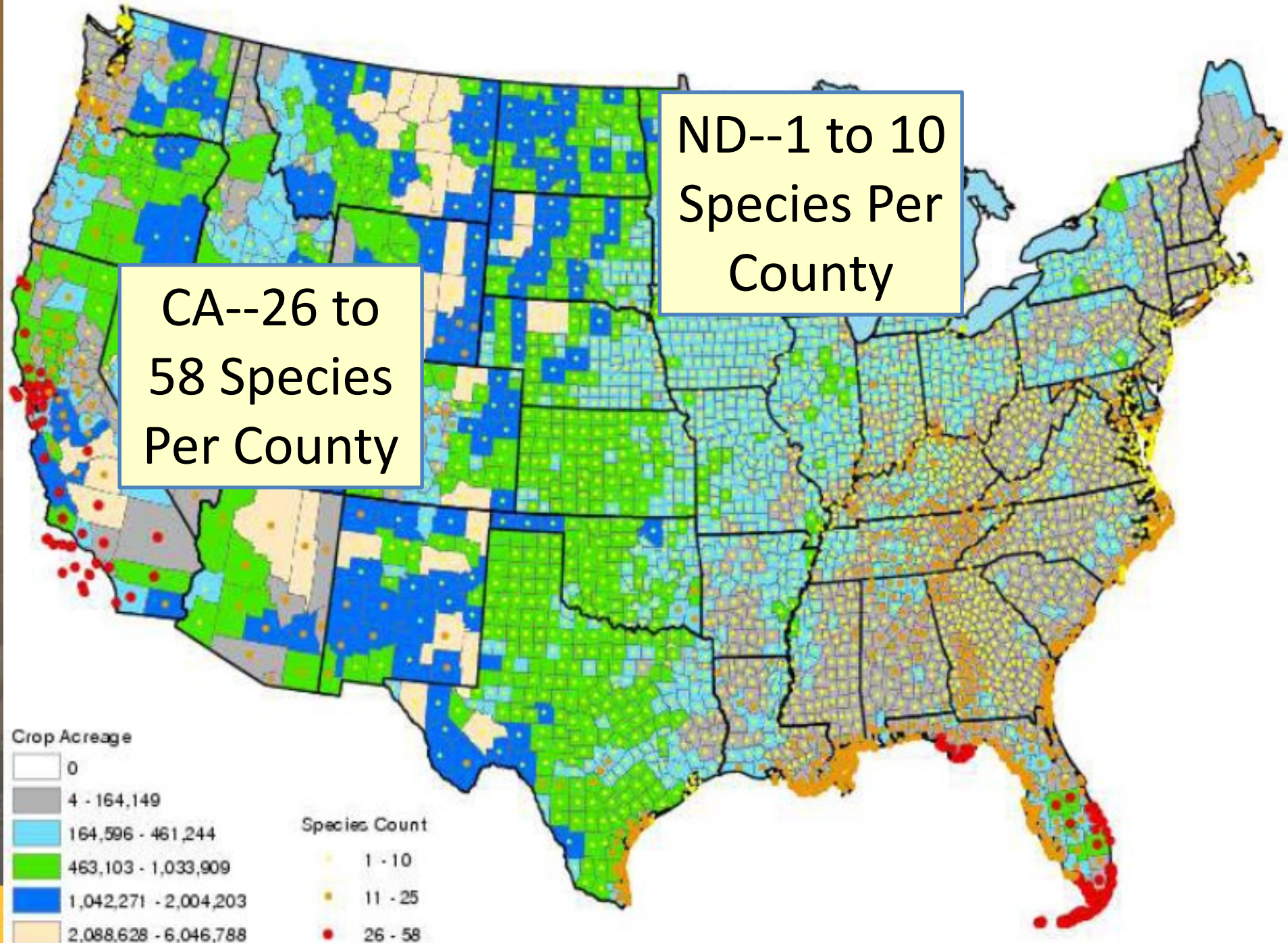
The Endangered Species Act and the Impacts to Pesticide Registration and Use



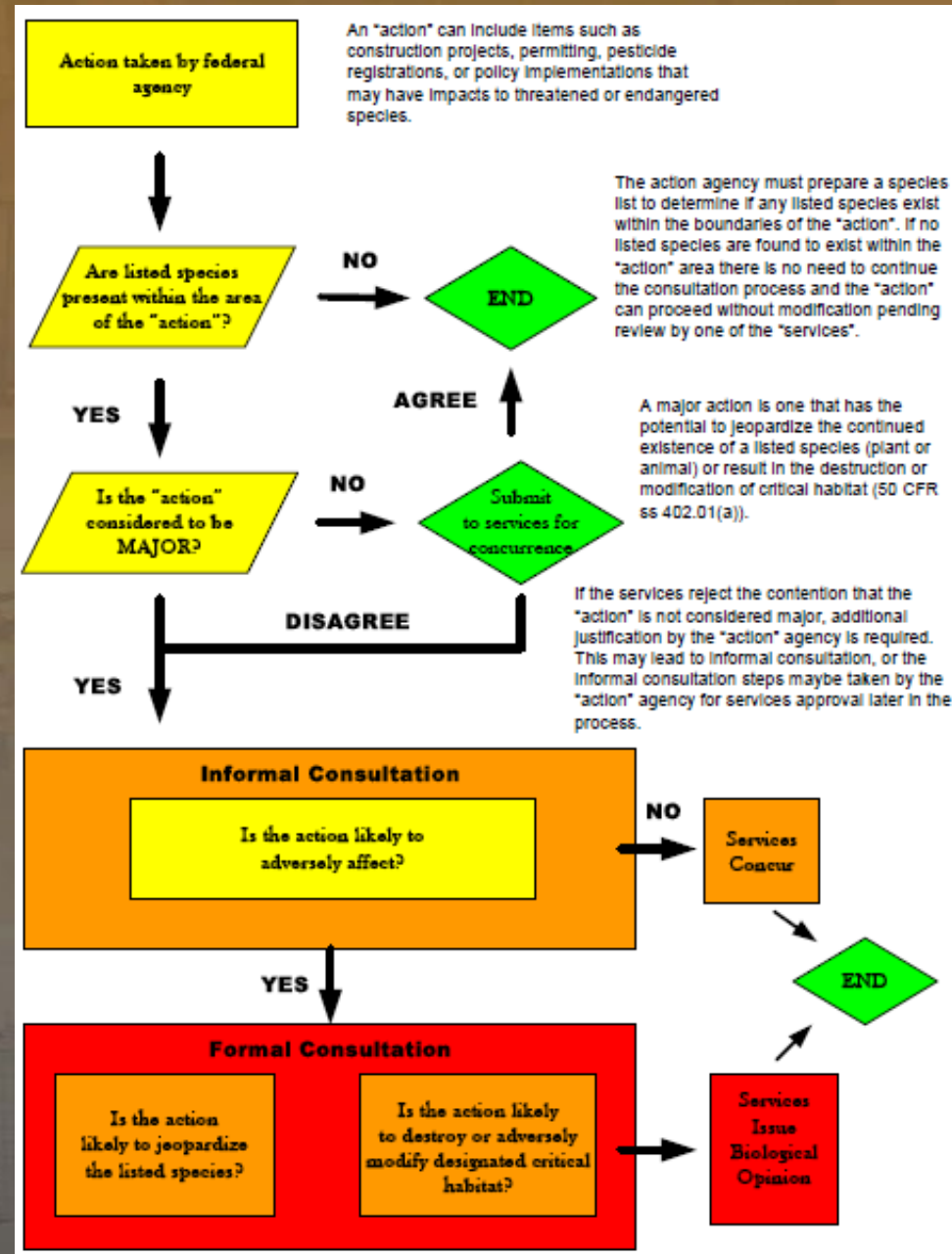
Washington State Department of Agriculture
October 2010 (Revised)

For further information contact:

Jim Cowles
360.902.2066
jcowles@agr.wa.gov



In 2010, consultation with multi-federal and state agencies was a nightmare.



Endangered Species

Contact Us Share

You are here: EPA Home » Endangered Species » Salmon Mapper

Salmon Mapper

Background Online Help Viewing Options

The "Salmon Mapper" tool provides a better understanding of the spatial extent of endangered or threatened species.

“Failure to comply with the court order is not a violation of FIFRA.”

the time of P...
whether the Court-ordered...
to your use of a specific pesticide.”

Washing...

The hydrologic data used in this interactive map application were downloaded from the...

California
Oregon
Washington

Pesticide: (optional)

Select a pesticide

1,3-dichloropropene



This 2011 lawsuit is what finally forced EPA's hand in 2022 and beyond

For Immediate Release, January 20, 2011

Contact: Jeff Miller, Center for Biological Diversity, (510) 499-9185
Heather Pilatic, Pesticide Action Network, (415) 694-8596

Landmark Lawsuit Filed to Protect Hundreds of Rare Species From Pesticides

Suit Targets EPA's Failure to Safeguard Species Around the Country in Its Oversight of More Than 300 Pesticides

SAN FRANCISCO— The Center for Biological Diversity and Pesticide Action Network North America today filed the most comprehensive [legal action](#) ever brought under the Endangered Species Act to protect imperiled species from pesticides, suing the U.S. Environmental Protection Agency for its failure to consult with federal wildlife agencies regarding the impacts of hundreds of pesticides known to be harmful to more than 200 endangered and threatened species.

"For decades, the EPA has turned a blind eye to the disastrous effects pesticides can have on some of America's rarest species," said Jeff Miller, a conservation advocate with the Center. "This lawsuit is intended to force the EPA to follow the law and ensure that harmful chemicals are not sprayed in endangered species habitats."



ESA Restrictions, Dicamba OTT 2020-2021

Bulletins Live! Two -- View the Bulletins

For assistance in using Bulletins Live! Two, [view the tutorial](#). Also see [background, notes and a quick start guide for BLT](#).

Current View: September 2019

Map Layers

- Pesticide Use Limitation Area (PULA)
- Effective

Map Scale: 1.36978595 Lat: 46.3223, Lng: -142.5579

INSTRUCTIONS RESULTS

Protecting Endangered Species

Directions: This search tool provides Pesticide Use Limitation Areas (PULAs) for pesticide active ingredients and products with active Bulletins. To access Endangered Species Protection Bulletins from this search tool:

- Zoom to your intended pesticide application area:
 - Manually zoom to a location by dragging the map to your location and using the "+" and "-" buttons to zoom in and out, or
 - Enter your intended pesticide application area into the Location Search Tool to automatically zoom to that location.
- Select your Application Month.
- Optional: Refine your search by entering a specific active ingredient or product and click the "Search" button. (Default is all active ingredients and products).
- Click on the PULA within your intended pesticide application area to activate the Results Tab with the associated limitations and print your Bulletin. If no PULA is present, click the "Search" button to activate the "No Limitations" dialog box and print your Bulletin.
- To complete an additional search, use the "Clear All" button to clear your current results.

Application Month:

Active Ingredient:

Product Name:

-- OR --

Label Statement and Bulletin

Endangered Species


It is a Federal offense to use any pesticide in a manner that results in the death of an endangered species.

The use of any pesticide in a manner that may kill or otherwise harm an endangered species or adversely modify their habitat is a violation of federal law. Use of this product may pose a hazard to endangered or threatened species.

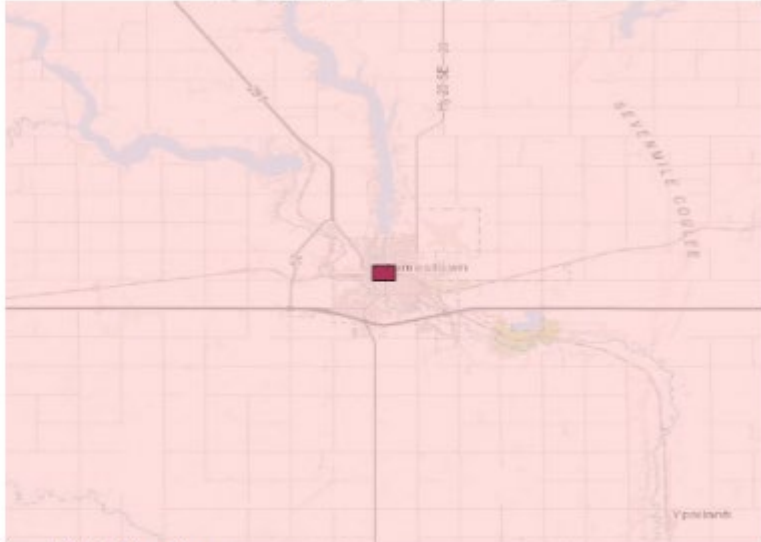
When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the area in which you are applying the product. To obtain Bulletins, no more than six months before using this product, consult <http://www.epa.gov/espp/> or call


1-844-447-3813. You must use the Bulletin valid for the month in which you will apply the product. Please Note: Additional endangered or threatened species obligations are listed under **Endangered Species** on this label. See **Crop-specific Information – Dicamba-tolerant (DT) Crops** section for more details regarding protection of endangered species.

Endangered Species Protection Bulletin

 Valid For: June 2021

1 Areas where pesticide use must be limited are identified on the map. A legend is located below the map to help pinpoint these locations.



 Limitation Area

Currently, no pesticide use limitations exist within the printed map view for the month and year you selected, beyond the instructions specified on the pesticide label. Follow the use instructions on your label.

Ensure that your pesticide application area is within the printed map view. If it is not, follow the directions on the Instructions Tab to ensure that your pesticide application area is captured within the printed map view.

Please check back if you plan to apply your pesticide in an area outside the map view or in a month and year other than the one for which this Bulletin is valid.

This document contains legal requirements for the use of certain pesticides. Do not modify any text, graphics or coloration or otherwise alter this document. ESPP Contact: ESPP@epa.gov Phone: 1-844-447-3813

Pesticide Use Limitation Summary Table

AI/Product	Use	App Method	Formulation	Code
ENGENIA HERBICIDE [7969-472]	Dicamba-Tolerant Cotton	Ground spray	Liquid	test
ENGENIA HERBICIDE [7969-472]	Dicamba-Tolerant Soybean	Ground spray	Liquid	test

Codes and Limitations Table

Code	Limitation
test	To protect federally listed threatened and endangered species, both a 310-foot in-field wind-directional spray drift buffer and a 57-foot omnidirectional in-field buffer are required. If applying with a qualified hooded sprayer, both a 240-foot in-field wind-directional spray drift buffer and a 57-foot omnidirectional in-field buffer are required to protect federally listed threatened and endangered species. Please see the label for a link to the website(s) with your product's qualified hooded sprayers. The following areas may be included in the buffer distance composition when directly adjacent to the treated field edges: 1. Roads, paved or gravel surfaces, mowed grassy areas adjacent to field, and areas of bare ground from recent plowing or grading that are contiguous with the treated field. 2. Planted agricultural fields containing dicamba-resistant plantings of cotton and soybeans. 3. Areas covered by the footprint of a building, silo, or other man made structure with walls and or roof.

2021 Sugarbeet Seed Box



(wheat, oat, rye, triticale, whole corn, (field, pop, sweet) cotton, dried shelled pea and bean (crop subgroup 6C), peanut, potato, rapeseed (crop subgroup 20A including canola), sorghum, soybean, sugar beet. All other crops may be planted a minimum of 30 days later.

ENDANGERED SPECIES

Thiram: This package contains seed treated with Thiram. This product may have effects on federally listed threatened endangered species or their critical habitat in some counties. It is a violation of federal law to kill, harm or harass listed animal species without authorization. To limit the potential for such impacts when using this product, consult and follow the instructions provided in the EPA Endangered Species Bulletin for the County or Parish in which you are applying the seed. To determine whether your County or Parish has a Bulletin consult <http://www.epa.gov/espp> before each season's use of this product.

USE RESTRICTIONS

The seed in this package (the "Seed") incorporates proprietary technology and may only be used by Buyer to grow sugar beets: 1) to be processed for sugar, 2) for energy production or 3) for animal feed. Breeding, research, DNA analysis or other use, testing, sale or resale of any kind of the Seed or plant material developed from the Seed is strictly prohibited without a signed license agreement with Betaseed. There are no third party beneficiary rights regarding the Seed.

PATENT NOTICE

The Seed in this package may be protected by one or more of the following:
US Patent No. 7,335,816 US Patent No. 10,767,191 US and International Patents Pending

NOTICE TO BUYERS

Under the seed laws of several states, arbitration, mediation or conciliation is required as a prerequisite to maintaining a legal action based upon the failure of seed, to which this notice is attached, to produce as represented. The consumer shall file a complaint (sworn in some states; signed only in others) along with the required filing fee (where applicable) with the Commissioner/Director/Secretary of Agriculture, Seed Commissioner, or Chief Agricultural Officer within such time as to permit inspection of the plants or crops by the designated agency and Betaseed. A copy of the complaint shall be sent to Betaseed by certified or registered mail, or as otherwise provided by state statute. Information about the requirement may be obtained from the state Department of Agriculture.

LIMITATIONS OF WARRANTIES AND REMEDIES

NO WARRANTY is made for crop yield and quality because outcomes may be variable and are dependent upon many factors beyond the control of Betaseed. Betaseed warrants that all Seed sold to Buyer has been labeled as required under applicable state and federal seed law and that the Seed conforms to the label description, within recognized tolerances. THIS WARRANTY IS IN PLACE OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT, AND COURSE OF DEALING OR USAGE OF TRADE. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE LABEL. BETASEED TRANSFERS ONLY THOSE RIGHTS, TITLE AND INTEREST TO BUYER THAT IT MAY HAVE REGARDING THE SEED. No claim shall be asserted against Betaseed unless Buyer reports to Betaseed within a reasonable period after discovery (not to exceed thirty (30) days) any condition that might lead to a complaint or claim. BUYER'S EXCLUSIVE REMEDY FOR ANY CLAIM, DAMAGES OR LOSS RESULTING FROM BREACH OF WARRANTY, BREACH OF CONTRACT, INDEMNITY, NEGLIGENCE, OR ANY OTHER LEGAL OR EQUITABLE THEORY (INCLUDING, BUT NOT LIMITED TO, INCIDENTAL, CONSEQUENTIAL, DIRECT, INDIRECT, SPECIAL, PUNITIVE OR EXEMPLARY DAMAGES) SHALL BE LIMITED TO REPAYMENT OF THE PURCHASE PRICE OR REPLACEMENT SEED, AT BETASEED'S SOLE DISCRETION. Betaseed has imposed strict rules on itself relating to the responsible use of genetic engineering and plant materials created through its use. Betaseed company has been a member of the industry initiative "Excellence Through Stewardship®" (ETS) since 2013. ETS is an integral component of our quality management system. Betaseed products are commercialized in accordance with ETS Product Launch Stewardship Guidance, and in conformance with the Betaseed stewardship program. This product (and any crop, material or byproduct produced or resulting from it) can only be exported to, or used, processed or sold in countries where all necessary regulatory and other legal approvals have been expressly granted. It is illegal to transfer material containing biotechnology traits into countries where import of this material is restricted or not permitted. Excellence Through Stewardship is a registered trademark of Biotechnology Innovation Organization.

By acceptance of or payment for the Seed, Buyer agrees that these terms and conditions and other others provided by Betaseed constitute the entire agreement between Buyer and Betaseed. Buyer shall return the original unopened Seed container to Betaseed within twenty (20) days of receipt for a refund of the purchase price if not accepted under these terms and conditions. Buyer also agrees to Betaseed's invoice terms and conditions, and all product use guides, stewardship obligations, or required technology agreements applicable to the Seed.

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V1 BTS 9/21

Endangered Species Protection

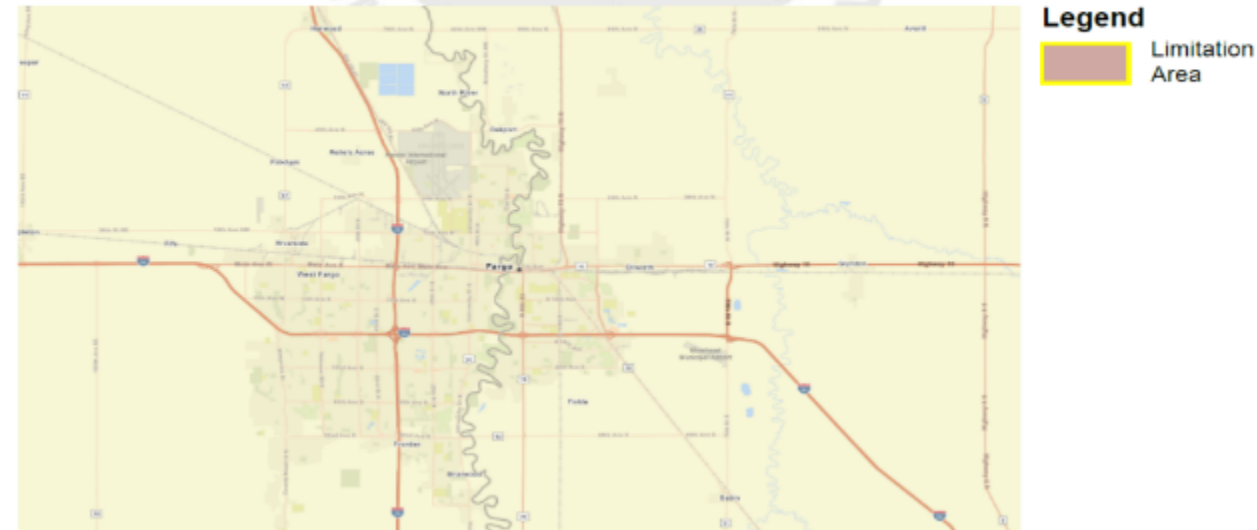


Application Month: June 2023

Product: 42-S THIRAM FUNGICIDE (

1

Areas where pesticide use must be limited are identified on the map. A legend is located beside the map to help pinpoint these locations.



Currently, no pesticide use limitations exist within the printed map view for the month/year and product you selected, beyond the instructions specified on the pesticide label.

Follow the use instructions on your label.

Ensure that your pesticide application area is within the printed map view. If it is not, follow the directions on the Instructions Tab to ensure that your pesticide application area is captured within the printed map view.

Please check back if you plan to apply your pesticide in an area outside the map view or in a month and year other than the one for which this Bulletin is valid.

This document contains legal requirements for the use of certain pesticides. Do not modify any text, graphics or coloration or otherwise alter this document.
ESPP Contact: ESPP@epa.gov Phone: 1-844-447-3813



In January 2022, EPA announced that before it registers any new conventional pesticide active ingredient, the Agency will meet its ESA obligations, including by evaluating potential effects on ESA-listed species and, where necessary, initiating ESA consultation with the federal wildlife agencies.

Enlist One® and Enlist Duo® herbicides county restrictions:

The map and county lists below represent county restrictions found on the federal Enlist One® and Enlist Duo® herbicide registration as of January 11, 2022.



January 11, 2022. Initial, much more restrictive map.



March 29, 2022

U.S. EPA Removes 134 County Restrictions, Issues Updated Supplemental Labels for Enlist One® and Enlist Duo® Herbicides



	herbicide (Both products)	herbicide
	Enlist One® herbicide (Both products in select areas in county)	Enlist Duo® herbicide
	Enlist Duo® herbicide (Only)	

December 1, 2023 Update

Enlist Restrictions Eased in 10 States

USFWS Concludes Enlist Herbicides Don't Put Most Endangered Species At Risk

12/4/2023 | 4:15 PM CST



By [Jason Jenkins](#), DTN Crops Editor

Connect with Jason:

[@JasonJenkinsDTN](#)



Nearly two years after Enlist Duo and Enlist One were registered by EPA, the U.S. Fish and Wildlife Service has issued its final biological opinion on the herbicide's potential risk to endangered species. (DTN file photo)

JEFFERSON CITY, Mo. (DTN) -- Farmers in 10 states where the use of Enlist One and Enlist Duo herbicides had been restricted will have access to the products for the upcoming season.

The final biological opinion (BiOp) from the U.S. Fish and Wildlife Service (USFWS) determined that the registration of Enlist products is not likely to jeopardize the continued existence of endangered or threatened species or adversely modify their critical habitat.

The U.S. Environmental Protection Agency (EPA) announced Friday, Dec. 1, that it had posted the USFWS's final BiOp to the docket. The document outlines the removal of all countywide prohibitions for Enlist products in Arizona, Colorado, Louisiana, New York, Pennsylvania and South Carolina. It also establishes subcounty-level restrictions for counties in Alabama (1), Georgia (11), Tennessee (1) and Texas (16). In Florida, previous restrictions remain in place in 22 counties for both Enlist One and Enlist Duo, with restrictions on Enlist Duo only in

two other counties.

2022 EPA Proposes Change in Atrazine Use, Partially Driven by Endangered Species Concerns



EPA Proposes New Atrazine Restrictions

Biden Administration Proposes Atrazine Label Restrictions for Farmers

6/30/2022 | 12:59 PM CDT



By Todd Neeley, DTN Staff Reporter

Connect with Todd:

@toddneeleyDTN



EPA proposed new label restrictions on atrazine products, in a proposal released on Thursday. (DTN file photo)

LINCOLN, Neb. (DTN) -- The EPA is proposing several label changes to atrazine products, designed to reduce runoff of the herbicide from farm fields.

The agency released a proposal for public comment on Thursday that would place new restrictions on atrazine use to protect aquatic plant species.

In December 2021, the U.S. Court of Appeals for the Ninth Circuit in San Francisco granted EPA's request to re-examine atrazine's label following a Biden administration executive order.

Atrazine is a herbicide widely used in agriculture across a range of crops, primarily corn but also sugarcane and sorghum, as well as a smaller amount in landscape care.

Environmental groups have lobbied for atrazine to be banned entirely, based on concerns about human health risks and environmental problems, particularly concerning water quality. Syngenta is the registrant and primary manufacturer of atrazine.

EPA proposes the following measures for all atrazine labels:

occur within 48 hours following application.

-- Prohibit aerial applications of all formulations.

-- To restrict annual application rates to 2 pounds of active ingredient or less per acre per year or less for applications to sorghum, field corn and sweet corn.

-- To prohibit application when soils are saturated or above field capacity (i.e., the soil's ability to retain water).

-- To prohibit application during rain or when a storm event, likely to produce runoff from the treated area, is forecast to

Table 1. Proposed Label Changes for All Atrazine Technical Products

Description	Proposed Label Changes for All Atrazine Technical Labels
Soil Saturation Restriction	For all formulations, add the following restriction: “Do not apply atrazine products when soils are saturated or above field capacity.”
Aerial Application Prohibition	For all formulations, add the following restriction: “Aerial application is prohibited.”
Precipitation Restriction	For all formulations, add the following restrictions: <ul style="list-style-type: none"><li data-bbox="698 696 1615 768">• “Do not apply atrazine containing products during rain.”<li data-bbox="698 775 2339 1011">• “Do not apply atrazine containing products when a storm event likely to produce runoff from the treated area is forecasted (by NOAA/National Weather Service, or other similar forecasting service) to occur within 48 hours following application.”
Use Restrictions for Sorghum; Field Corn; Sweet Corn	For all formulations, add the following restriction: “Do not apply more than 2.0 lbs ai/A/year”



Applications to Field Corn

Table C. Picklist for Field Corn

Definitions and explanations of various practices have yet to be explained

Utilize ≥ 30 ft (Hydrological Soil Groups A & B) or ≥ 100 ft (Hydrological Soil Groups C & D) vegetative filter strip

Cover crop

Contour buffer strips

Terrace farming

Field border

Grassed waterway

Irrigation water management

Contour farming

Strip cropping

Soil incorporation to a depth of 2.5 cm

No tillage and reduced tillage

Region 2 States in Watersheds Included in Atrazine Concentration List 1 if Applying to Highly Erodible Lands

- At an application rate of 1.0 lb ai/A/year or less, **two** runoff reduction practices must be present from **Table C**.
- At an application rate above 1.0 lb ai/A/year, **four** runoff reduction practices must be present from **Table C**.
- Do not apply more than 1.6 lbs/A for pre-emergence applications.

Region 2 States in Watersheds Included in Atrazine Concentration List 1 if Applying to Non-Highly Erodible Lands

- At an application rate of 1.0 lb ai/A/year or less, **one** runoff reduction practice must be present from **Table C**.
- At an application rate above 1.0 lb ai/A/year, **two** runoff reduction practices must be present from **Table C**.



Coming soon
to recently
re-registered
product labels

Dissolved Runoff Mitigation

For all products delivered via liquid spray or granular applications to agricultural crops that do not require production in flooded fields or streams.

“RUNOFF MITIGATION

Users cannot apply this product unless one of the following conservation measures are in place prior to application:

- Vegetative filter strip (30 ft minimum width)
- Field border
- Field terracing/contour buffer strips
- Contour farming
- Cover cropping
- No/reduced tillage
- Grassed waterways
- Riparian buffer zone/riparian herbaceous zone
- Vegetative/grassed ditch banks
- Runoff retention pond/ water and sediment control basin/ sediment catchment basin/ constructed wetland
- Strip cropping
- Vegetative barriers
- Mulching with natural materials
- Alley cropping”

See [website address]¹²³ and follow the instructions in the descriptions for more information on these conservation measures.

TOPSIN[®] M 70WP
THIOPHANATE-METHYL FUNGICIDE
70% Wettable Powder

ACTIVE INGREDIENT: Thiophanate-methyl
(dimethyl[1,2-phenylene)-bis(iminocarbonothioyl)]bis[carbamate])* 70.0%

OTHER INGREDIENTS: 30.0%

TOTAL 100.0%

*Also known as dimethyl 4,4'-o-phenylenebis[3-thioallophanate]
TOPSIN is a registered trademark of Nippon Soda Company, Ltd., and is licensed to NISSO TM LLC, and is covered by one or more of the following U.S. Patents: 3,769,308; 3,856,847; 4,020,095; and 4,029,813.

The newest wrinkle with ESA, summer 2023

- EPA proposes to NOT evaluate pesticides on a product by product basis nor on a species by species level
- EPA will group pesticides and will group species limitations
- This concept was introduced first with herbicides via EPA's

"Draft Herbicide Strategy Framework to Reduce Exposure of Federally Listed Endangered and Threatened Species and Designated Critical Habitats from the Use of Conventional Agricultural Herbicides."

Weed Societies Weigh in on EPA's "Herbicide Strategy for Coping with the ESA



October 22, 2023

Ms. Jan Matuszko
Director
Environmental Fates and Effects Division
Office of Pesticide Programs
Environmental Protection Agency
1200 Pennsylvania Ave, NW
Washington, DC 20460-0001

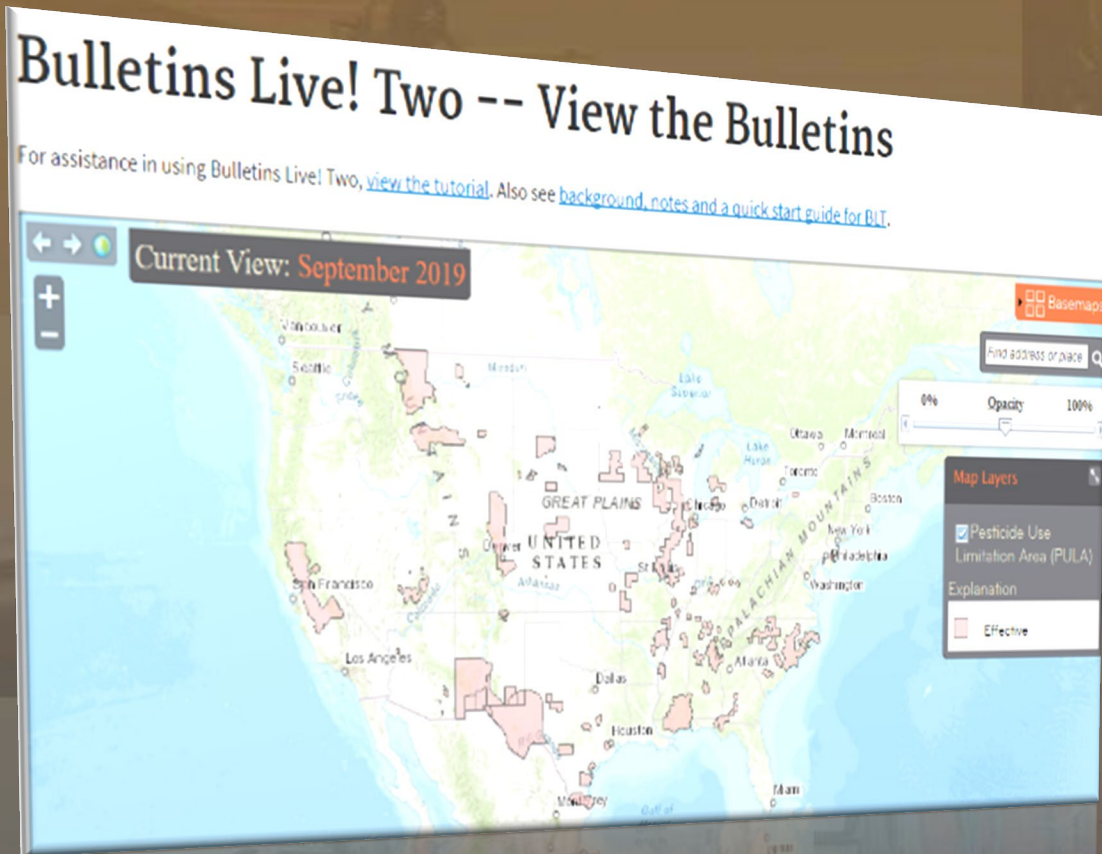
Submitted via regulations.gov

RE: Memorandum to Open Docket for Comment "Draft Herbicide Strategy Framework to Reduce Exposure of Federally Listed Endangered and Threatened Species and Designated Critical Habitats from the Use of Conventional Agricultural Herbicides. Herbicide Strategy Framework Document"; Docket No. [EPA-HQ-OPP-2023-0365](https://www.regulations.gov/docket/EPA-HQ-OPP-2023-0365)

“The first step in protecting listed species is understanding exactly where the species and their critical habitats are located. Whether restrictions being placed on pesticide use are included on the general product label or are specified on geographically specific bulletins, it is essential that up-to-date species ranges are identified.”

Pesticide Use Limitations Areas...

““To efficiently and effectively implement geographically specific mitigations for the Strategy, EPA is not proposing to develop single species PULAs and bulletins, but rather to produce four bulletins, each of which represents multiple species that have common taxonomy and habitats and thus need the same mitigations.”





EPA's New ESA Approach...

- Herbicide Strategy (final by March 30, 2024)
- Rodenticides (final in 2024, date not specified)
- Insecticides (final by January 17, 2025)
- Fungicides (final estimated 2025 or 2026)

EPA policy is conditioned by stipulations for settlement of the original 2011 CBD Lawsuit

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IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

CENTER FOR BIOLOGICAL DIVERSITY,)
et al.,)

Plaintiffs,)

v.)

U.S. ENVIRONMENTAL PROTECTION)
AGENCY, *et al.*,)

Defendants,)

CROPLIFE AMERICA, *et al.*,)

Defendant-Intervenors.)

This Stipulated Settlement Agreement (“Agreement”) is entered into by and between: Plaintiffs
Center for Biological Diversity, Pesticide Action Network North America (collectively, “Plaintiffs”);
Defendants the United States Environmental Protection Agency and Michael S. Regan, in his official

Case No. CV-11-0293-JCS

**PROPOSED STIPULATED
SETTLEMENT AGREEMENT**

Magistrate Judge Joseph C. Spero

The Rise & Fall of Control by FIFRA



In 2024, FIFRA is no longer the driver of pesticide policy, the courts are



EPA pushed to protect fish from pesticides

By The Associated Press and Herald staff

PORTLAND — Conservation groups are trying to push the Environmental Protection Agency toward stricter controls on pesticides that harm salmon, announcing Wednesday their intent to force the issue in court. The EPA has "utterly failed" to protect salmon

The Northwest Coalition for Alternatives to Pesticides, or NCAP, and the Washington Toxics Coalition served the EPA regional office in Seattle with the 60-day notice required by law before a

It's Your Call: — Should there be stricter controls on pesticides? This page.

mental groups are that the EPA hasn't canceled pesticide registrations that cause environmental harm. And they fault the EPA for not consulting with the National Marine Fisheries Service to address the worst chemical problems. They called for emergency measures to stop potential harm to fish, saying the standard

Agency Code of NCAP said while pesticide labels warn against allowing them to get into fish-bearing streams, they don't tell consumers how to accomplish that. Research shows pesticides at levels too low to kill fish still can cause behavioral changes and reproduction problems, Code added.





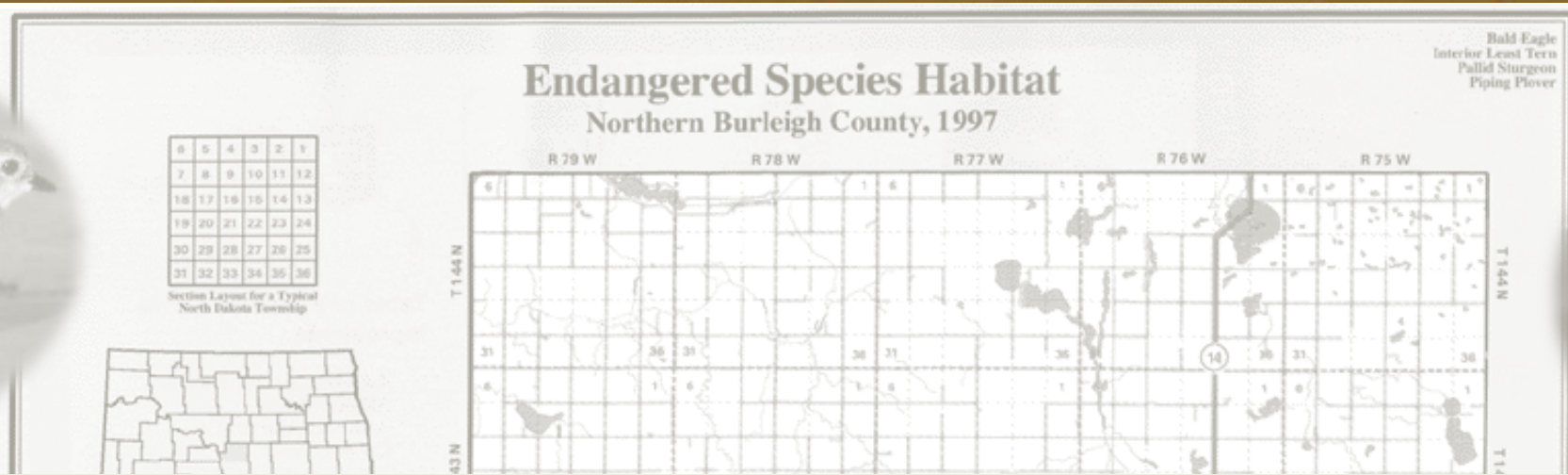
How are you responding to these proposals?

Are you educating yourself on these issues?

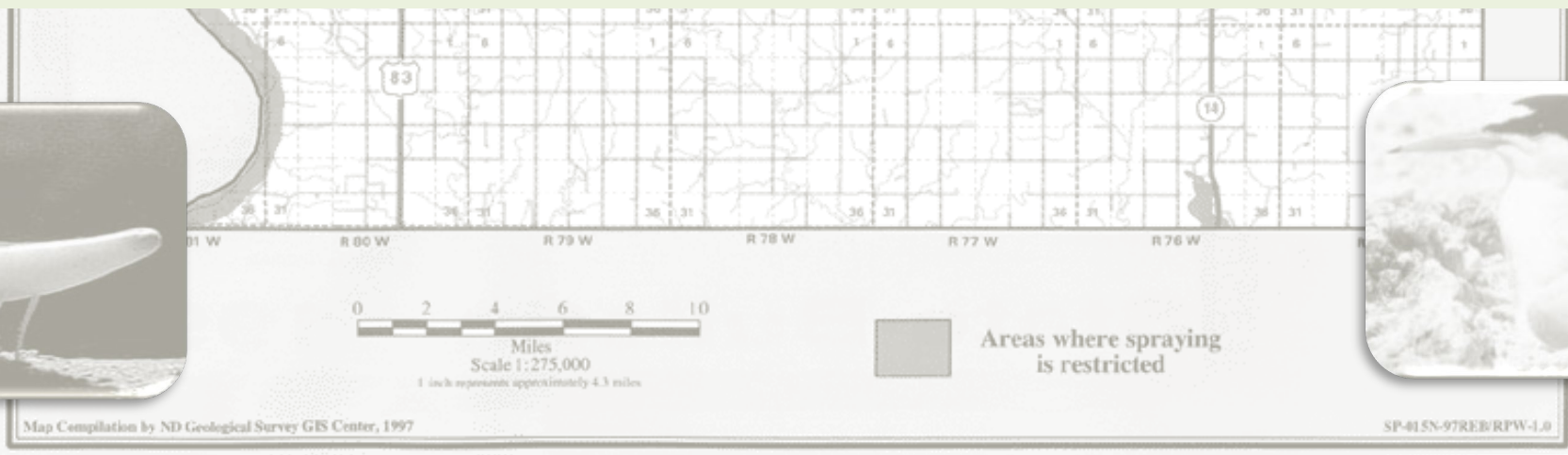
Are you communicating with commodity groups and/or professional associations?

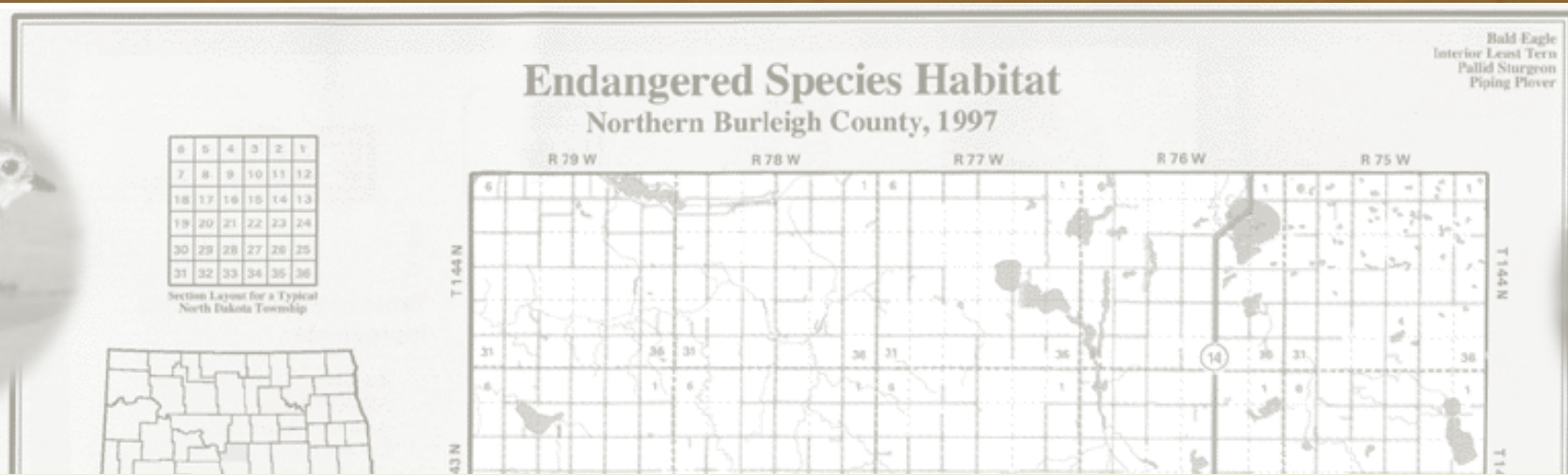
Are you communicating with your representatives?

Are you commenting to EPA?



The way forward is NOT clear and the unknowns are great.





Thank you!

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