

Mitigation Menu

Helpful Links

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Date of last update: May 23, 2024

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Purpose

EPA is proposing to use this ecological mitigation menu website as an extension of certain pesticide labels to provide more information for pesticide users with respect to runoff/erosion mitigation on FIFRA section 3 labels. You are here because recent pesticide proposed decisions/decisions referenced this website. The information below provides a mockup of the mitigation menu website and explains the context for the mitigation menu. EPA intends to hold a webinar on June 18th, 2024 to provide stakeholders with an opportunity to ask questions and provide feedback on the proposed function of this website and the mitigation menu. Stakeholders are encouraged to provide feedback on this website at the June 18th, 2024 webinar.

Mitigation Menu Webinar (6/18/2024)

- [Mitigation Menu Webinar Video](#)
- [Mitigation Menu Webinar Transcript \(pdf\)](#) (256.1 KB)
- [Mitigation Menu Webinar Slides \(pdf\)](#) (2 MB)

Background

In April 2022, EPA released its ESA Workplan, which outlines strategies and actions for the Agency to meet its ESA obligations for FIFRA actions.¹ In November 2022, EPA released its

first ESA Workplan Update.² As part of this update, EPA announced that, going forward, EPA may include a variety of FIFRA Interim Ecological Mitigation (FIFRA IEM) measures on FIFRA section 3 labels that seek to reduce exposure for nontarget organisms based on its FIFRA ecological risk assessments. EPA expects that this mitigation may also reduce pesticide exposures for listed species.

In July 2023, EPA published the Draft Herbicide Strategy.³ The Herbicide Strategy is focused on reducing potential impacts on listed species from agricultural uses of herbicides in the lower 48 states. EPA is currently working to finalize the Herbicide Strategy and align the FIFRA IEM and the Herbicide Strategy mitigation, based on feedback from public comments. Similarly, EPA is working to develop the Draft Insecticide Strategy, which will be published for public comment in summer 2024. EPA intends that both the Herbicide Strategy and the Insecticide Strategy will refer to the same mitigation menu, and eventually incorporated on this website when finalized.

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 new ESA strategies are finalized (e.g., the Herbicide Strategy). Additionally, EPA is working with the United States Department of Agriculture (USDA) to develop informational materials for growers who participate in voluntary USDA programs (or want to participate in the future) so they can understand how voluntary programs that utilize practices from NRCS or similar conservation programs can fulfill EPA label requirements. Once finalized, the information will be included on this mitigation menu website.

Runoff Vulnerability Map

In EPA's Draft Herbicide Strategy, the need for/magnitude of potential runoff/erosion mitigation was driven by consideration of field characteristics such as geographic location, field slope, field soil type and application practices such as soil incorporation and partial field treatment. One of the field characteristics noted was that the "application area is to the west of the Interstate-35 and east of US Route 395," which was meant to reflect dry areas of the country less prone to runoff, also known as Western irrigated agriculture. In response to feedback from public comments, EPA refined the Western irrigated agriculture concept and presented an update to the Herbicide Strategy in April 2024.⁴

As part of the April 2024 update, EPA explained how it has revisited its analysis to differentiate runoff vulnerability based on rainfall, soil, and other lines of evidence. The update presented a map that refines the Western irrigated agriculture concept on a county level (see Figure 1).

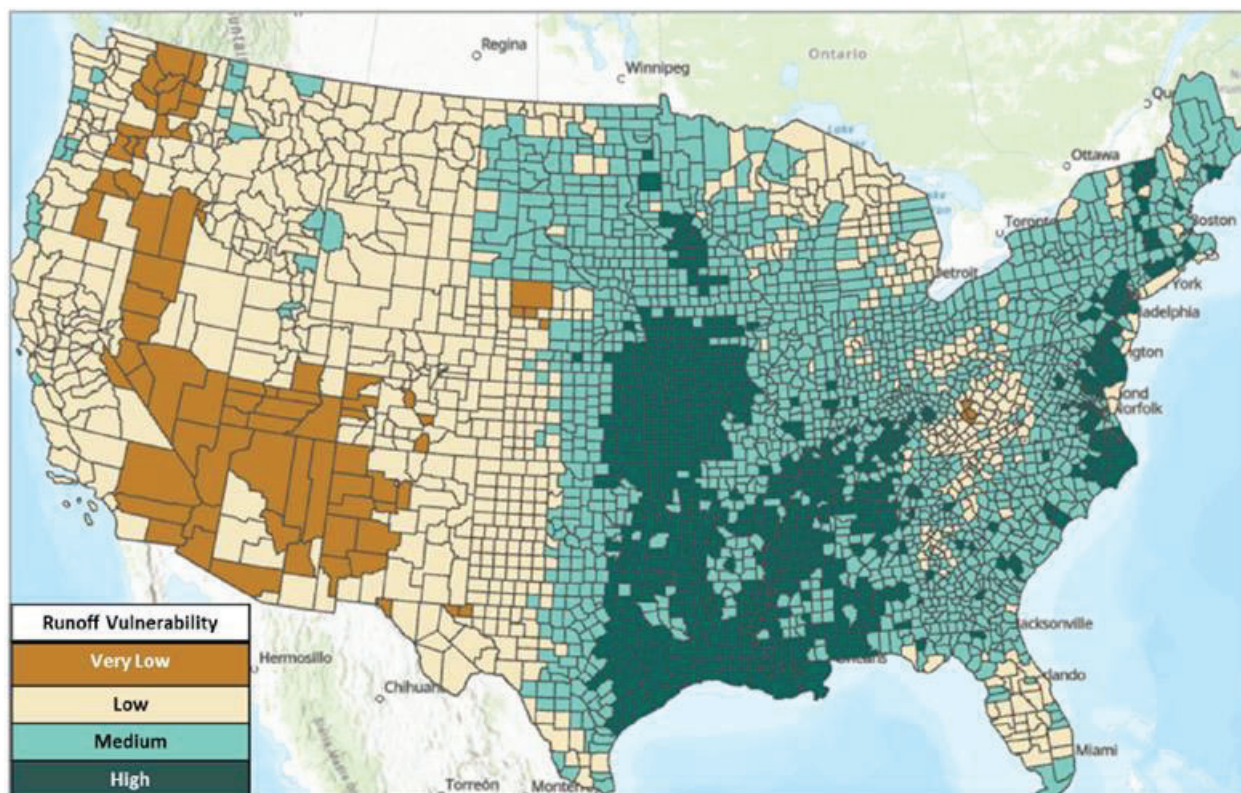


Figure 1. Revised analysis of pesticide runoff vulnerability at the county level.

EPA is still working to finalize the Herbicide Strategy, however, EPA intends to use the runoff vulnerability map above to determine which areas of the country would need additional FIFRA IEM runoff/erosion mitigation. At this time, EPA expects that only counties with high runoff vulnerability (bluish green in the central to eastern areas of the map) would be subject to additional FIFRA IEM runoff/erosion mitigation. Click [here](#) to see if you are in one of the [Counties With Reduced Runoff \(xlsx\)](#) (47.3 KB) .

At this time, areas with very low, low, and medium runoff vulnerability (2,300 counties in the brown, yellow, and light seagreen areas on the map) do not require FIFRA IEM runoff/erosion mitigation because they are less prone to runoff. Runoff/erosion mitigation may be required in the future for the brown, yellow, and light seagreen counties on a case-by-case basis as the Final Herbicide Strategy and other ESA strategies are finalized. Click [here](#) to see if you are in one of these [Counties With High Runoff Vulnerability \(xlsx\)](#) (21.3 KB) .

When EPA finalizes the Herbicide Strategy, EPA will incorporate a points system for these county runoff designations to further meet its obligations under the Endangered Species Act (ESA). Subsequently, this website will be updated to reflect the new Herbicide Strategy points system. EPA expects that any runoff/erosion mitigation required under the Herbicide Strategy will override any FIFRA IEM runoff/erosion mitigation for labels that might be subject to both sets of requirements.

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.

How do I know if Runoff/Erosion Mitigation is Required?

Check the FIFRA section 3 product label first. Some pesticide labels contain a “Runoff/Erosion Mitigation” section which lists specific measures to reduce runoff/erosion concerns. If your label contains a “Runoff/Erosion Mitigation” section, read the label carefully and check if any of the following applies:

- Is the application occurring in a county that is less vulnerable to runoff? Check the list of [Counties With Reduced Runoff \(xlsx\)](#) (47.3 KB)
- Is the application area comprised of over 50% sand, loamy sand, or sandy loam soil?
- Does the application area have a slope $\leq 3\%$?
- Is the application occurring as a partial field treatment (i.e., banded application, spot treatment, or backpack/handheld/precision sprayer application)?
- Is the application incorporated via irrigation or as a soil incorporation?
- Does the treated field have subsurface or tile drains installed with controlled drainage?
- Does the treated field have a perimeter berm system?

Runoff/erosion mitigation is not required if any of these field/application parameters are in place.

Runoff/Erosion Mitigation Measures

If none of the field conditions/application parameters above are met, the following is a list of the mitigation measures that you may choose from to achieve the mitigation required by the label. See the associated descriptions linked for each measure listed in the table below for the minimum specifications needed to successfully address runoff/erosion concerns. EPA anticipates updating this list based on updates to its ESA Strategies. After this initial update, as EPA receives new information on mitigation measures and their associated efficacy, the Agency may periodically update the Mitigation Menu Website to include additional mitigation options or update the mitigation menu table below or mitigation measure descriptions.

EPA Ecological Mitigation Menu: Runoff/Erosion Mitigation

- [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 \(e.g., retention ponds, sediment basins\)](#)
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¹ [Balancing Wildlife Protections and Responsible Pesticide Use \(Apr. 2022\)](#)

² [ESA Workplan Update: Nontarget Species Mitigation for Registration Review and Other FIFRA Actions \(Nov. 2022\)](#)

³ [EPA Releases Draft Strategy to Better Protect Endangered Species from Herbicide Use](#)

⁴ [Update on Herbicide Strategy \(April 2024\)](#)

- [Pesticides Home](#)
- [A-Z Index](#)
- [Antimicrobial Pesticides](#)
- [Biopesticides](#)
- [International Activities Related to Pesticides](#)

[Contact Us](#) to ask a question, provide feedback, or report a problem.

LAST UPDATED ON JULY 24, 2024