



# BEYOND PESTICIDES

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April 4, 2025

Office of Pesticide Programs  
Environmental Protection Agency  
1200 Pennsylvania Ave. NW  
Washington, DC 20460-0001

**Re: Pesticide Registration Review: Atrazine [EPA-HQ-OPP-2013-0266]**

Dear Madam/Sir,

These comments are submitted on behalf of Beyond Pesticides. Founded in 1981 as a national, grassroots membership organization that represents community-based organizations and a range of people seeking to bridge the interests of consumers, farmers, and farmworkers. Beyond Pesticides advances improved protections from pesticides and alternative pest management strategies that eliminate a reliance on pesticides. Our membership and network span the 50 states and the world.

We are writing in response to the U.S. Environmental Protection Agency's (EPA) updated mitigation proposal for atrazine that incorporates the revised concentration-equivalent level of concern (CE-LOC) of 9.7 micrograms per liter ( $\mu\text{g}/\text{L}$ ) and supplemental mitigation measures that are triggered at that value. The CE-LOC represents the level at which atrazine is expected to adversely affect aquatic plants. Although EPA is not now soliciting comment on any other aspects of the atrazine interim registration review decision, we nonetheless reiterate our appeal, that we have shared in previous comments, for the agency to adhere to the statutory mandate of the *Federal Insecticide, Fungicide, and Rodenticide Act* (FIFRA) and revoke the registration of atrazine due to unreasonable adverse health and environmental effects.

Atrazine, as one of the most widely used herbicides in the U.S., is utilized to control annual broadleaf and grass weeds in a variety of agricultural crops, such as corn, sorghum, and sugarcane. Atrazine products are also registered for numerous other uses, including on macadamia nuts, guava, wheat, and turfgrass. Atrazine is highly mobile and persistent in the environment and has been linked to a multitude of adverse health and environmental effects, which have motivated numerous public interest campaigns to ban its use in the U.S., as it has been in Europe.<sup>1</sup>

The CE-LOC values that have been recalculated multiple times over the past 10 years highlight inconsistency within EPA decisions. In an update on atrazine posted by EPA in July of 2024, the background of these determinations is discussed:

“In the 2016 atrazine ecological risk assessment, EPA determined that the scientifically derived CE-LOC was 3.4 µg/L, measured as a 60-day average. However, in September 2020, a less protective level for determining the need for mitigation at 15 µg/L was set that was based on a policy decision rather than a scientific one and raised questions about scientific integrity. Following subsequent litigation and partial remand of its 2020 Atrazine Interim Registration Review Decision, in 2022, EPA released a proposal for updated mitigation to address atrazine runoff and mitigate risks to aquatic plant communities, which was based on the CE-LOC of 3.4 µg/L. Since that time, the agency convened a meeting of the FIFRA Scientific Advisory Panel (SAP) to evaluate studies that were used to calculate the atrazine CE-LOC. Following the SAP, EPA reevaluated two additional relevant studies based on public comments and letters to the agency, which resulted in recalculating the CE-LOC for atrazine as 9.7 µg/L.”<sup>2</sup>

This higher level supposedly protects the aquatic plant community but stems from models and calculations that EPA itself previously acknowledged have uncertainty. EPA also focuses on the upper end of ranges determined by these models, as they say recovery is more likely at lower concentrations. We disagree with considering recovery in assessing ecological risk. The concept of recovery is highly subjective and time dependent.<sup>3</sup> Ecological structure and function can be perturbed in the short term and adverse impacts can be transferred outside the system in question with permanent consequences. For instance, a short-term shift in dominance of the algal community will impact zooplankton biomass and reduce food availability for juvenile waterfowl resulting in waterfowl population loss.<sup>4</sup>

Additional issues, as pointed out in Beyond Pesticides’ previous comments in 2022,<sup>5</sup> are that the CE-LOC 1) does not incorporate toxic metabolites of atrazine, including desethyl-s-atrazine (DEA), desisopropyl-s-atrazine (DIA), and diaminochlorotriazine (DACT), that also pose serious risk concerns to aquatic plant communities and (2) the direct and indirect effects to endangered species are not fully considered. In November 2021, the agency released the final Biological Evaluation (BE) assessing risks to listed species from labeled uses of atrazine. The agency made likely to adversely affect (LAA) determinations for 1013 species and 328 critical habitats, which support the need for the lowest estimated CE-LOC for establishing risk concern thresholds to be utilized. As a comparison to EPA’s CE-LOC levels, Canada uses a 1.8 µg/L aquatic concentration limit for atrazine.<sup>6</sup>

In the updated proposal, EPA “determined that a field located in a watershed with a predicted atrazine concentration above the CE-LOC of 9.7 µg/L but below 45.4 µg/L would need to achieve three points of mitigation. For a field located in a watershed with a predicted concentration at or above 45.4 µg/L, EPA identified six points of mitigation to be necessary.” These mitigation measures are meant to “reduce run-off/erosion, which will expand the

number of options of mitigation measures growers can choose to implement to reduce potential exposure and risk to aquatic plant communities from atrazine runoff in vulnerable watersheds,” according to EPA. This implements a point system from the Final Herbicide Strategy through the Mitigation Menu website of the Bulletins Live! Two system.<sup>7,8,9</sup>

The utilization of the mitigation menu website, however, is a process so cumbersome and convoluted that it cannot be taught, implemented, or enforced.<sup>10</sup> The expectation is placed on applicators, who may not be fully versed in math or English, to use a point system to determine if enough mitigation measures can be applied to allow for the use of the pesticide in a use limitation area. Users complain of technological problems with the website, while also commenting on the complexities involved in the process.<sup>10</sup>

Even if the mitigation menu was easier to navigate, these proposed mitigations only lessen the chance of harmful impacts of pesticide use and, more concerning, are entirely voluntary. There is no enforcement mechanism and no way to ensure that the pesticides are used as directed or that mitigation measures are implemented properly. The only way to truly protect endangered species, as well as the ecosystem, is to stop the use of pesticides completely.

Converting the world’s agricultural systems to organic practices would have a tremendous positive impact on endangered species populations. Organic farming enhances biodiversity in the ecosystem and mitigates environmental degradation and climate change, all of which is necessary for recovery of threatened and endangered species. Advocates of organic agriculture argue that instead of spending millions of dollars and many years creating mitigation programs that are unenforceable and ineffective, EPA should spend the same amount of time and money supporting farmers in the transition to organic agriculture and in exiting the toxic pesticide treadmill.

We find the benefits of atrazine are overstated and improperly considered, as EPA’s benefits assessment did not adequately consider loss of aquatic species and ecosystem services from impaired habitats and sensitive aquatic plant communities. The benefits of atrazine use are also very much diminished by availability of alternative pest management that incorporates alternative cultural practices and/or less toxic products, including numerous other registered pesticides.

The mitigation options being proposed by the agency are intended to reduce exposure and risk to aquatic plant communities from atrazine via runoff from agricultural uses. However, the various options considered only reduce potential runoff and will not eliminate serious adverse impacts to aquatic plant communities or listed species and their habitat. It also does not consider other routes of exposure, such as leaching to groundwater and interflow to surface waters. The proposed mitigation options are together overly complicated and will not ensure that continued atrazine use will not cause further adverse environmental effects.

The registration review process, as stated by EPA, is a “periodic review of pesticide registrations to ensure that each pesticide continues to satisfy the statutory standard for registration, that is, the pesticide can perform its intended function without unreasonable adverse effects on human health or the environment.” A wide body of science showcases exactly those unreasonable risks with atrazine use.<sup>11</sup> Due to this, we urge the agency to not only reassess the proposed CE-LOC levels and mitigation measures but to revoke the registration of this herbicide due to the high-risk findings and demonstrated adverse impacts as identified in scientific literature and in EPA’s health and ecological assessments.

Thank you for your consideration of our comments.

Respectfully,

A handwritten signature in black ink, appearing to read "Sara Grantham". The signature is fluid and cursive, with a large, stylized initial "S" and "G".

Sara Grantham

Science, Regulatory, and Advocacy Manager

<sup>1</sup> Sass, J. and Colangelo, A. (2006) European Union bans atrazine, while the United States negotiates continued use, *International Journal of Occupational and Environmental Health*. Available at: <https://pubmed.ncbi.nlm.nih.gov/16967834/>.

<sup>2</sup> United States Environmental Protection Agency (2024). EPA Releases Updated Mitigation Proposal for Atrazine. Available at: <https://www.epa.gov/pesticides/epa-releases-updated-mitigation-proposal-atrazine>.

<sup>3</sup> Pratt, J.R. and Cairns Jr, J. (1996) Ecotoxicology and the redundancy problem: understanding effects on community structure and function. *Ecotoxicology: A Hierarchical Treatment* (pp. 347-369).

<sup>4</sup> Grue, C.E. (1988) Agricultural chemicals and the quality of prairie-pothole wetlands for adult and juvenile waterfowl-what are the concerns?, *U.S. Fish and Wildlife Service*. Available at: <https://pubs.usgs.gov/publication/5210398>.

<sup>5</sup> Beyond Pesticides (2022) Triazine Comments to EPA. Available at: <http://bp-dc.org/triazines-bp-2022-2020-2016>

<sup>6</sup> Canadian Council of Ministers of the Environment (1999) Canadian Water Quality Guidelines for the Protection of Aquatic Life—Atrazine, p. 1–4 in Canadian Environmental Quality Guidelines. Available at: <https://ccme.ca/en/res/atrazine-en-canadian-water-quality-guidelines-for-the-protection-of-aquatic-life.pdf>.

<sup>7</sup> United States Environmental Protection Agency (2024) Herbicide Strategy to Reduce Exposure of Federally Listed Endangered and Threatened Species and Designated Critical Habitats from the Use of Conventional Agricultural Herbicides. Available at: <https://www.regulations.gov/document/EPA-HQ-OPP-2023-0365-1137>.

<sup>8</sup> United States Environmental Protection Agency (2024) Mitigation Menu. Available at: <https://www.epa.gov/pesticides/mitigation-menu>.

<sup>9</sup> United States Environmental Protection Agency (2024) Bulletins Live! Two. Available at: <https://www.epa.gov/endangered-species/bulletins-live-two-view-bulletins>.

<sup>10</sup> Beyond Pesticides (2024) EPA “Mitigation Menu” Called Complex, Raising Doubts about Required Endangered Species Protection. Available at: <https://beyondpesticides.org/dailynewsblog/2024/06/epa-mitigation-menu-called-complex-raising-doubts-about-required-endangered-species-protection/>.

<sup>11</sup> Beyond Pesticides. Gateway on Pesticide Hazards and Safe Pest Management —Atrazine.  
Available at: <https://www.beyondpesticides.org/resources/pesticide-gateway?pesticideid=7>.