



BEYOND PESTICIDES

701 E Street, SE ■ Washington DC 20003
202-543-5450 phone ■ 202-543-4791 fax
info@beyondpesticides.org ■ www.beyondpesticides.org

December 23, 2024

Office of Pesticide Programs
Environmental Protection Agency, (28221T)
1200 Pennsylvania Ave., NW
Washington, DC 20460-0001

Re: Pesticide Tolerance; Exemptions, Petitions, Revocations, etc.: Glufosinate-P [EPA-HQ-OPP-2020-0533]

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.

In response to the request for modifying tolerances of glufosinate-P by BASF Corporation and MITSUI Chemicals Crop & Life Solutions, INC under the *Federal Food, Drug, and Cosmetic Act* (FFDCA), we believe that the U.S. Environmental Protection Agency (EPA) should not allow residues of glufosinate in any form on crops and food products. With documented reproductive effects, neurotoxicity, birth/developmental effects, leaching, and toxicity in fish/aquatic organisms,¹ as well as acute toxicity through inhalation and oral/dermal exposure; organ toxicity; “[s]eizures; muscle weakness (post-status epileptic myopathy); convulsions; and even death,”² glufosinate should be considered too dangerous to allow any tolerances for.

First registered in the U.S. for use as an herbicide in 1993 by Hoechst Celanese, glufosinate is an organophosphorus chemical that is primarily a foliar-active herbicide with limited systemic activity and is linked to a range of human health and environmental effects.³ With glufosinate’s high mobility, solubility, and resistance to breakdown by light and water, there is great potential for contamination and risk of harm for many species.³ The Northwest Center for Alternatives to Pesticides⁴ summarizes the effects of glufosinate in saying:

Glufosinate is a broad-spectrum herbicide that kills plants by inhibiting the enzyme glutamine synthetase, an enzyme also found in animals, including humans. Glufosinate chemically resembles glutamine, a molecule used to transmit nerve impulses in the brain. Neurotoxic symptoms observed in laboratory animals following ingestion, dermal exposure, or inhalation of glufosinate include convulsions, diarrhea, aggressiveness, and disequilibrium. Dogs appear to be the laboratory animal most sensitive to glufosinate. Ingestion of glufosinate for two weeks caused heart and circulatory failure resulting in death. Exposure of pregnant laboratory animals to glufosinate caused an increase in premature delivery, miscarriages, the number of dead fetuses, and arrested development of fetal kidneys. Concentrations of a glufosinate-containing herbicide of less than one part per million cause mortality of oyster and clam larvae. Several species of disease-causing fungi are resistant to glufosinate, while a beneficial fungus that parasitizes disease-causing fungi is very susceptible to glufosinate. This means that use of glufosinate can have “important microbiological consequences.”

We find that the processes for pesticide registration and review remain insufficient to protect endangered species, public health, the environment, and biodiversity. EPA presupposes that farmers must use toxic chemicals, an assumption that clouds and undermines the regulatory process, trapping farmers on a toxic pesticide treadmill. For years, EPA failed to comply with the *Endangered Species Act* (ESA) by not accounting for impacts to threatened and endangered species (“listed species”) when approving pesticide usage under the *Federal Insecticide, Fungicide, and Rodenticide Act* (FIFRA). These oversights threaten the health of all organisms and need to be amended.

EPA has not adequately addressed the fact that glufosinate poses immediate serious harm to people and the environment. The mitigation measure that EPA is considering do not eliminate the harm. The public does not benefit from continued registration of glufosinate, given the availability and viability of alternative management practices and products as defined by the *Organic Foods Production Act* (OFPA) and implemented by the U.S. Department of Agriculture.

Beyond Pesticides and others—including organic and regenerative organic farmers and advocates—have long argued that the failure of EPA to consider the viability, productivity, and profitability of organic practices and product alternatives to conventional pesticides means the agency’s registration and reregistration of toxic pesticides, including glufosinate, have not been subject to a complete assessment. In this context and given the availability of less and nontoxic alternatives, EPA has failed in its responsibility to ensure that pesticides registered for use under FIFRA will not cause unreasonable adverse effects. In fact, EPA notes in an interim decision on glufosinate from 2016, “The (EPA) registration review program is intended to make

sure that, as the ability to assess and reduce risk evolves and as policies and practices change, all registered pesticides continue to meet the statutory standard of no unreasonable adverse effects.”

The planet is facing an urgent biodiversity crisis** with more species approaching extinction than ever before. The purpose of ESA is to address this loss of biodiversity by protecting habitats critical to the survival of the most at-risk species. Pesticide use is a major driver of biodiversity decline, contributing to extinctions and elevating species’ vulnerability to environmental challenges such as climate change, habitat fragmentation, and exposure to toxic chemicals. To protect biodiversity, EPA is charged with examining how its decisions may exacerbate this crisis. Pesticides are a leading factor in the decline of insect populations and diversity, often referred to as the “insect apocalypse,” which threatens ecosystems across the planet. EPA’s approval of insecticides has posed risks to insect populations, while herbicides degrade insect habitats and food sources and pesticides disrupt food webs—in both freshwater and marine ecosystems.

Allowing the use of glufosinate on crops, which leaves residues on food products, not only threatens the health of many critical species and overall biodiversity, but it poses unacceptable risks to public health and the environment. No tolerances should be allowed for glufosinate, in all of its forms, under the unreasonable adverse effects standard of FIFRA.

Thank you for your consideration of our comments.

Respectfully,

A handwritten signature in black ink, appearing to read 'Sara' followed by a stylized, circular flourish.

Sara Grantham

Science, Regulatory, and Advocacy Manager

** See landmark report, dated December 17, 2024, by the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES).⁵ The Assessment Report on the Interlinkages Among Biodiversity, Water, Food and Health – known as the Nexus Report - offers decision-makers around the world the most ambitious scientific assessment ever undertaken of these complex interconnections and explores more than five dozen specific response options to maximize co-benefits across five ‘nexus elements’: biodiversity, water, food, health and climate change.

¹ Beyond Pesticides, Gateway on Pesticide Hazards and Safe Pest Management for Glufosinate:
<https://www.beyondpesticides.org/resources/pesticide-gateway?pesticideid=190>

² Glufosinate, National Center for Biotechnology Information PubChem Compound Database.
Available at: <https://pubchem.ncbi.nlm.nih.gov/compound/4794>.

³ Beyond Pesticides, ChemicalWatch Factsheet on Glufosinate:
<https://www.beyondpesticides.org/assets/media/documents/GlufosinateChemWatch.pdf>

⁴ Glufosinate, Northwest Center for Alternatives to Pesticides Journal of Pesticide Reform.
Available at:
<https://assets.nationbuilder.com/ncap/pages/26/attachments/original/1428423375/glufosinate.pdf>.

⁵ Media Release: IPBES Nexus Assessment (2024) IPBES. Available at:
<https://www.ipbes.net/nexus/media-release>.