



February 4, 2025

Chair Golden and Committee Members:

Center for Food Safety advocates for a better food system on behalf of our thousands of members in Oregon. CFS has worked for over 25 years to prevent the harms of industrial agriculture and secure better regulation to protect farmers, consumers, and our environment. We support SB 747 because it establishes basic reporting requirements for fertilizer applications on the state’s largest farms. This legislation is a necessary step in ensuring the sustainability of Oregon’s agricultural sector, protecting drinking water, and promoting responsible land stewardship.

Currently, Oregon lacks comprehensive data on fertilizer use, leaving state agencies unable to develop effective strategies for reducing waste, preventing pollution, and supporting farmers in optimizing their operations. SB 747 addresses this data gap by requiring large-scale agricultural operations to report fertilizer use to the Oregon Department of Agriculture (“ODA”). This data collection brings Oregon in line with neighboring states like California and Washington,¹ helping us make informed decisions and provide targeted support to both farmers and the public.

The overuse of synthetic fertilizers by large industrial farms has well-documented environmental and public health consequences. Nutrient contamination from fertilizer leaching into groundwater is a pressing concern, particularly for the 80% of Oregonians—many in rural communities—who rely on groundwater for drinking water.² Nitrate and phosphorus pollution pose significant risks, with excess nitrate exposure linked to severe health conditions, including Blue Baby Syndrome, gastrointestinal cancers, thyroid dysfunction, and reproductive issues.³ Additionally, phosphorus runoff can accelerate the growth of harmful algal blooms in freshwater systems, further degrading

¹ See, e.g., *Fertilizer Research and Education Program*, CALIF. DEP’T OF FOOD & AGRIC., <https://www.cdfa.ca.gov/is/flldrs/frep/>; *Irrigated Lands Regulatory Program (ILRP)*, CALIF. WATER BD.’S https://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/; Groundwater Ambient Monitoring and Assessment (GAMA) Program, CALIF. WATER BD.’S, <https://www.waterboards.ca.gov/gama/>; *Fertilizer Product Registration*, WASH. STATE DEP’T OF AGRIC., <https://agr.wa.gov/departments/pesticides-and-fertilizers/fertilizers/product-registration>; *Groundwater: Nitrate Data Assessment*, WASH. STATE DEP’T OF ECOLOGY, <https://ecology.wa.gov/water-shorelines/water-quality/groundwater/nitrate-data-assessment>; *Dairy Nutrient Management Plans & Inspections*, WASH. STATE DEP’T OF AGRIC., <https://agr.wa.gov/departments/land-and-water/livestock-nutrients/dairy-nutrient-management-plans-and-inspections>.

² *Groundwater Quality Protection in Oregon: 2021-2022 Report*, 2023 Or. Leg. Assemb., Or. Env’t Qual. Comm’n (submitted to Governor Tina Kotek) (on file with Or. Dep’t of Env’t Qual.) (available online at <https://www.oregon.gov/deq/FilterDocs/gwLegRep2023.pdf>).

³ Mary H. Ward et al., *Drinking Water Nitrate and Human Health: An Updated Review*, 15 INT’L J. OF ENV’T RSCH. & PUB. HEALTH 1, 1–22 (2018).



drinking water quality and increasing treatment costs.⁴ Moreover, heavy metals like cadmium, lead, and copper in synthetic fertilizers can also leach into groundwater, posing risks of kidney damage, liver problems, cancer, and neurological issues.⁵ However, by gathering fertilizer use data, ODA and other state agencies can work with farmers to implement best practices that minimize these risks while maintaining agricultural productivity.

Beyond groundwater contamination, fertilizer runoff into Oregon's rivers, lakes, and coastal waters contributes to significant environmental challenges. The excess nitrogen and phosphorous from fertilizers contribute to the growth of harmful algal blooms, which can deplete oxygen levels in water and create "dead zones" where marine life cannot survive.⁶ This degradation of aquatic ecosystems threatens the health of wildlife, particularly salmon populations, which are vital to Oregon's environment, economy, and Tribal resources.⁷ The impacts extend beyond just wildlife concerns, as sectors like fishing, tourism, and recreation also suffer.⁸ The decline in water quality and the loss of biodiversity directly affect industries that rely on healthy aquatic environments, jeopardizing jobs, livelihoods, and the overall well-being of communities that depend on these resources.

Additionally, excessive fertilizer application is a leading contributor to nitrous oxide (N₂O) emissions—one of the most potent greenhouse gases driving climate change. N₂O is roughly 300 times more effective at trapping heat in the atmosphere than carbon dioxide, making it a major driver of global warming.⁹ In the United States, agricultural soil management accounts for a staggering 75% of N₂O emissions, largely due to the over-application of nitrogen fertilizers, which can break down into N₂O in the atmosphere.¹⁰ Phosphorus runoff also exacerbates climate-

⁴ Max G. Levy, *The World's Farms Are Hooked on Phosphorus. It's a Problem*, WIRED (Jan. 23, 2023), <https://www.wired.com/story/the-worlds-farms-are-hooked-on-phosphorus-its-a-problem/>.

⁵ Ahmed Alengebawy et al., *Heavy Metals and Pesticides Toxicity in Agricultural Soil and Plants: Ecological Risks and Human Health Implications*, 9 TOXICS 1, 1–23 (2021).

⁶ *Sources and Solutions: Agriculture*, U.S. ENV'T PROT. AGENCY, <https://www.epa.gov/nutrientpollution/sources-and-solutions-agriculture> (last updated Nov. 18, 2024).

⁷ Grant Stringer, *Struggling salmon fishermen getting federal help in Oregon and along West Coast, but it may be too late*, OR. PUB. BROAD. (Oct. 23, 2023), <https://www.opb.org/article/2023/10/23/struggling-salmon-fishermen-federal-relief-oregon-west-coast-but-too-late/> (although decreasing, the total commercial value of salmon caught in Oregon has averaged over \$1 million per year); *Tribal Salmon Culture*, COLUMBIA RIVER INTER-TRIBAL FISH COMM'N, <https://critfc.org/salmon-culture/tribal-salmon-culture/>.

⁸ *The Effects: Dead Zones and Harmful Algal Blooms*, U.S. ENV'T PROT. AGENCY, <https://www.epa.gov/nutrientpollution/effects-dead-zones-and-harmful-algal-blooms> (last updated Dec. 16, 2024).

⁹ *Nitrous oxide emissions grew 40 percent from 1980 to 2020, accelerating climate change*, NAT'L OCEANIC & ATMOSPHERIC ADMIN. (June 12, 2024), <https://research.noaa.gov/nitrous-oxide-emissions-grew-40-percent-from-1980-to-2020-accelerating-climate-change/>.

¹⁰ *Agriculture Sector Emissions*, U.S. ENV'T PROT. AGENCY, <https://www.epa.gov/ghgemissions/agriculture-sector-emissions> (last updated Jan. 16, 2024).



related impacts by fueling algal blooms that release methane, another potent greenhouse gas.¹¹ This makes reducing fertilizer misuse a critical component in addressing climate change. By implementing smarter fertilizer application strategies, informed by SB 747's data collection requirements, Oregon can significantly curb N₂O emissions from agricultural soils.

Importantly, SB 747 supports the economic sustainability of farmers by addressing the financial losses caused by fertilizer that leaches into groundwater or runs off into waterways. When fertilizers are wasted due to inefficient application, farmers not only lose valuable resources but also incur unnecessary costs, affecting their bottom line. By promoting more efficient fertilizer use and reducing waste, the Bill helps farmers lower their expenses, increase crop yields, and enhance long-term soil health, which can lead to greater overall productivity and profitability.¹² Moreover, SB 747 aims to balance environmental protection with economic considerations by exempting approximately 90% of Oregon's farms, focusing primarily on the largest operations that have the most significant environmental impact. This approach ensures that the policy targets the farms responsible for the majority of synthetic fertilizer pollution, while minimizing the regulatory burden on smaller farms.

With no current system for tracking fertilizer use at scale, Oregon is at a disadvantage in addressing agricultural pollution and supporting farmers in optimizing their practices. SB 747 is a common-sense policy that ensures our state has the tools necessary to safeguard drinking water, protect natural resources, and sustain Oregon's farming future. I urge the Committee to pass SB 747 to promote a more resilient and responsible agricultural system.

Thank you for your time and consideration.

Sincerely,

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CENTER FOR FOOD SAFETY

¹¹ Georgina Gustin, *Toxic Algae Blooms Occurring More Often, May Be Caught in Climate Change Feedback Loop*, INSIDE CLIMATE NEWS (May 15, 2018), <https://insideclimatenews.org/news/15052018/algae-blooms-climate-change-methane-emissions-data-agriculture-nutrient-runoff-fertilizer-sewage-pollution-lake-erie/>.

¹² Elizabeth Creech, *The Dollars and Cents of Soil Health: A Farmer's Perspective*, U.S. DEP'T OF AGRIC. BLOG (Mar. 12, 2018), <https://www.usda.gov/about-usda/news/blog/dollars-and-cents-soil-health-farmers-perspective>.