

April 2025

HIDDEN CRISIS: Highly toxic sewage sludge (misabeled as healthy fertilizer) has been applied to 20% of US farmlands and gardens, massively contaminating US food, soil and groundwater

Overview Sewage treatment plants in the U.S. produce over 14 million tons of toxic sewage sludge annually. Instead of dumping sewage far offshore, the EPA signed a consent agreement in the 1980s to encourage the processing of sewage and its application to agricultural land as fertilizer. Ignored by this plan was the unpredictable variety and amount of chemicals and industrial wastes contained in the mix, and the fact that "processing" was rudimentary and failed to remove any toxins. The EPA still does not know what is contained in sludge, does not require measurement of toxic materials (except several elements) and has never sought to investigate the individual or synergistic effects of these substances on human and animal health.

In an August 2024 *New York Times* article, "Something's Poisoning America's Land," we learned that "farmers have obtained permits to use sewage sludge on nearly 70 million acres, or **about a fifth of all U.S. agricultural land.**" The Times has published 9 articles on the sludge problem over the past 8 months, linked below.

Despite being marketed as a safe fertilizer and rebranded "biosolids," sludge always contains PFAS, microplastics, pharmaceutical drug products and brominated flame retardants. When "applied" as a fertilizer, sludge poisons the land, the run-off enters waterways and its components contaminate the food supply.

PFAS substances persist in the environment indefinitely. Exposure has been linked with kidney cancer, liver disease, thyroid disorders, autoimmune disorders of the digestive system, and immune system impacts in children.

Key Concerns

- **Widespread PFAS Contamination:** Depending on the chain length and other factors, some PFAS are taken up by crops and livestock while others migrate into groundwater and surface water, contaminating food and water supplies.
- **PFAS Exposure:** PFOS, PFOA, and several other PFAS compounds are consistently found in high concentrations in sludge. These chemicals bioaccumulate, cause cancer, and affect immune, endocrine, and reproductive systems.
- **Microplastic Pollution:** Over 90% of microplastics entering wastewater systems end up in sludge and contaminate the land where sludge is spread, disrupting soil health and inhibiting plant growth.
- **Unknown Substances:** The unmonitored industrial release of chemical waste products into sewer systems leads to unpredictable, unknown and unmeasured hazards whose risks are borne by the public.
- **Poisoned Well Water:** Rural communities are especially dependent on the safety of drinking water wells. Maine, the only state to systematically assess sludge spread on

farms, found that roughly **one in five households adjacent to the impacted farms had unsafe PFAS levels in their water.**

- **Proven Risk from Contaminated Food:** In January 2025, the EPA published a draft risk assessment indicating that the PFAS in a single application of sewage sludge can lead to an unacceptable increase in the risk of cancers and non-cancer health impacts for farming families.

Farmers and Ranchers Face Catastrophic Losses

PFAS-impacted farms have gone out of business in Texas, New Mexico, Colorado, Michigan, and Maine. For example:

- **Maine:** Adam Nordell and Johanna Davis lost their organic farm in Unity, Maine after discovering severe PFAS contamination from sludge that had been "applied" on their land by previous owners. The contamination destroyed their crops, contaminated water sources, and resulted in high PFAS levels in their blood, forcing them to cease operations.
- **Texas:** Dead livestock, crop damage, and health problems have been recorded in Johnson County, Texas on ranches near land that was spread with PFAS-contaminated sewage sludge ([Texas Public Policy Foundation, 2024](#)). Texas State Representative DeWayne Burns, who represents Johnson County, declared the county a disaster area due to sludge spreading. Texas State Rep. Helen Kerwin has proposed legislation to limit land application in the state.

Across the U.S., farmers and ranchers are facing devastating economic, health, and emotional consequences due to historical and ongoing sludge application. In 2021, the most recent year for which figures are available, 88% of all payouts made through the federal Dairy Indemnity Payment Program (DIPP) were to dairy farmers whose milk was contaminated by PFAS, underscoring the severity of the crisis and the national scale of its impact on the food supply.

State Actions to End Sludge Spreading

- The legislatures of Texas, Oklahoma, and Missouri are all considering Republican-sponsored bills to regulate PFAS levels in land-applied sludge or ban the practice entirely. Similar bills are moving forward in blue states.
- Maine and Connecticut have banned sludge application on land.

Policy Recommendation: Ban Land Application Nationwide

The land application of sewage sludge is regulated by federal law under Chapter 40 Part 503 of the Code of Federal Regulations ([40 CFR 503, also called the Part 503 Sludge Rule](#)). The EPA is required to:

- *"Establish numerical limits and management practices that protect public health and the environment from the reasonably anticipated adverse effects of toxic pollutants in sewage sludge.*

- *Periodically review existing regulations for the purpose of identifying additional toxic pollutants that may be present in sewage sludge and assesses whether those pollutants may adversely affect public health or the environment based on their toxicity, persistence, concentration, mobility, and potential for exposure."*
- *Instead the EPA has performed modeling of limited risks, failed to consider the range of toxins present, and failed to evaluate their additive or synergistic impact on health*

SOLUTIONS

1. Sufficient amounts of numerous toxic pollutants exist in sludge to warrant a blanket prohibition by the EPA against the use of sludge (a.k.a. biosolids) "applied" to land.
2. The FDA could alternatively issue a rule banning the future sale of meat and dairy from animals grown on sludge-treated land and could include other foods grown on land where sludge has been applied, or fertilizers produced from sludge have been used.
3. The long-term solution is to separate industrial and chemical wastes from human wastes, which could potentially be processed for fertilizer. Factories should be responsible for their own waste processing and disposal.
4. In the meantime, sewage sludge must be disposed of in lined pits or another manner that avoids contamination of groundwater, food products and soil.

Contact: Laura Orlando, Just Zero, Lorlando@just-zero.org; Abby Rockefeller; [Meryl Nass, M.D.](#)