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EWG: 'Forever chemicals' may taint nearly 20 million cropland acres



The toxic “[forever chemicals](https://www.ewg.org/pfaschemicals/)” known as PFAS could be contaminating nearly 20 million acres of U.S. cropland, according to an EWG estimate.

Using state data, EWG estimates 5 percent of all crop fields could be using sewage sludge, or biosolids, as a fertilizer, even though it's often contaminated with PFAS. For example, **Ohio** (<https://data-oepra.opendata.arcgis.com/datasets/biosolids-application-fields/explore?location=-40.173900%2C-82.667550%2C7.72>) found an estimated 5 percent of all cropland acres have been fertilized with sludge since 2011. There are no **national requirements** (<https://www.epa.gov/biosolids/regulatory-determinations-pollutants-biosolids>) to test biosolids for the presence of PFAS or warn farmers they could be using contaminated sludge on their crops.

Since 2016, 19.1 billion pounds of sludge have been applied to farm fields, according to **state reports to the Environmental Protection Agency** (<https://echo.epa.gov/facilities/facility-search>). The states that produced the most sludge intended for use on farm fields include California, Florida and Illinois, but sludge can be transported and applied in other states.

If farmers applied five tons of sludge per acre per year, as some **experts estimate** (<https://www.epa.gov/sites/default/files/2018-11/documents/land-application-biosolids-factsheet.pdf>), the total number of acres of cropland where sludge is applied could be as low as 2 million acres, EWG estimates.

Sewage sludge is a product of the wastewater treatment process. **Industrial discharges of PFAS into rivers** (<https://www.ewg.org/interactive-maps/2021-suspected-industrial-discharges-of-pfas/map/>) and to wastewater treatment plants build up in the sludge, which is then applied to land as a fertilizer, put in a landfill or incinerated. **Federal rules** (<https://www.epa.gov/biosolids/regulatory-determinations-pollutants-biosolids>) limiting pathogens and metals in sludge do not apply to PFAS.

Once PFAS-contaminated sludge is applied as a fertilizer, the chemicals can build up in food crops, feed crops such as corn and hay, and the animals that eat these feed crops. Several **farmers** (<https://www.reuters.com/article/us-usa-dairy-chemicals/the-curious-case-of-tainted-milk-from-a-maine-dairy-farm-idUSKCN1R01AJ>) have been forced to euthanize their farm

animals due to high levels of PFAS in farm products. These forever chemicals can also contaminate **irrigation water** (<https://www.newmexicopbs.org/productions/newmexicoinfoocus/art-schaaps-dairy-dilemma/>).

Several states, including **Michigan** (https://www.michigan.gov/documents/egle/wrd-pfas-initiatives-statewide-full-report_722902_7.pdf) and **Maine** (<https://www.maine.gov/dep/spills/topics/pfas/index.html>), have detected high levels of PFAS in sludge and taken action. For example, Maine has developed a **detailed map** (<https://maine.maps.arcgis.com/apps/webappviewer/index.html?id=468a9f7ddcd54309bc1ae8ba173965c7>) of sludge applications.

Some PFAS are more likely to build up in sludge, **studies show** (<https://linkinghub.elsevier.com/retrieve/pii/S2405844019359766>). Once applied to the land, PFAS in sludge can be taken up by edible plants, although the amount can vary, depending on the amount of PFAS and **type of plant** (https://www.epa.gov/sites/default/files/2019-11/documents/s08_pfascropuptake.pdf).

PFAS can cause a broad range of health harms. Very low doses in drinking water have been linked to **suppression of the immune system** (<https://www.ewg.org/news-insights/news/pfas-chemicals-harm-immune-system-decrease-response-vaccines-new-ewg-review>) and are associated with an elevated risk of cancer and **reproductive and developmental harms** (<https://www.ewg.org/news-and-analysis/2019/09/pfas-and-developmental-and-reproductive-toxicity-ewg-fact-sheet>), among other serious health concerns.

PFAS are called “forever chemicals” because they build up in our bodies and never break down in the environment. Nearly all Americans, including newborn babies, have PFAS in their blood.

EPA’s **PFAS Strategic Roadmap** (<https://www.epa.gov/pfas/pfas-strategic-roadmap-epas-commitments-action-2021-2024>), its plan for addressing PFAS, fails to address the chemicals in sludge, pledging only to complete a study of the issue by the end of 2024. The roadmap also fails to set a deadline for quickly curtailing the **industrial PFAS releases** (<https://www.ewg.org/news-insights/news/2021/09/epas-plan-regulate-industry-forever-chemicals-discharges-falls-short>) that are the

primary source of sludge contamination.

Tell Congress: Stop the PFAS Contamination Crisis

We need your help to protect our water from toxic PFAS
chemicals.

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