

## Biosolids, Land Application, and the EPA's Draft PFAS Risk Assessment

### ***What are biosolids?***

Biosolids are not sewage sludge, and they're not poop. Sewage sludge and poop are the raw materials that get transformed into biosolids through the wastewater treatment process. Biosolids have undergone chemical and physical processes to become a nutrient-rich byproduct.

### ***Why land apply biosolids?***

Biosolids provide a natural source of nitrogen, phosphorus, and micronutrients that crops need to grow. Because biosolids have so much nutrients, they offset the use of synthetic fertilizers, which are expensive and resource-intensive to produce. Thus, biosolids are a sustainable (and economical) way to improve soil quality, promote plant growth, and sequester carbon.

### ***How do you monitor the quality of biosolids?***

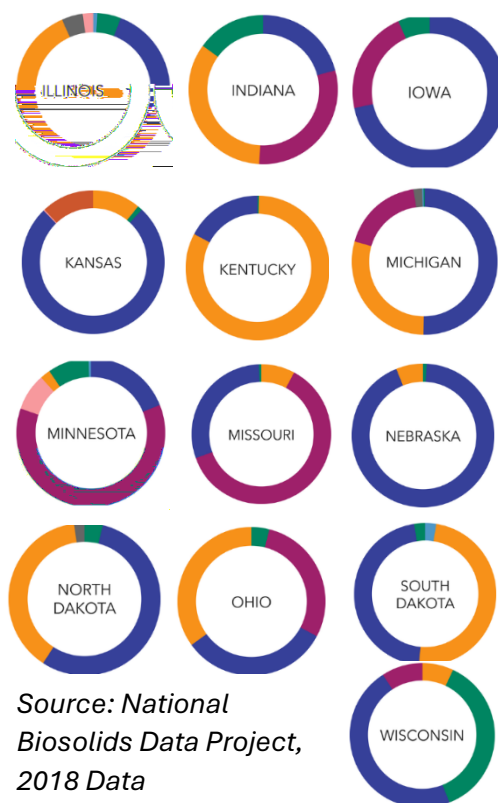
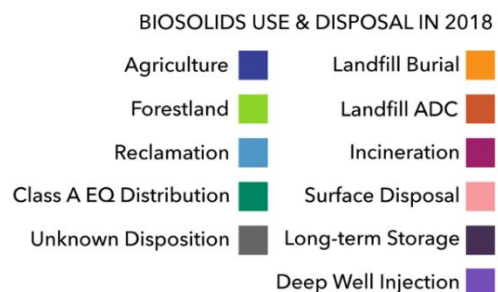
Before they are land applied, biosolids must pass pathogen and metals testing to meet the stringent requirements of the US EPA's Part 503 regulations as well as any additional state-specific regulations. The practice of biosolids land application is endorsed by the US EPA, USDA, and FDA.

### ***What's all this talk about PFAS in biosolids?***

PFAS (per- and polyfluoroalkyl substances) are a group of synthetic chemicals, including PFOA and PFOS, found in many consumer and industrial products – such as non-stick cookware, food packaging, and firefighting foam. PFAS are present almost everywhere in the environment due to their widespread use and tendency to persist in the environment. Research shows that exposure to PFAS may cause cancer and harmful non-cancer health effects.

Because PFAS show up in our homes and in our bodies, PFAS can also show up in our biosolids, which reflect our lifestyles (we are what we eat, as they say). However, there are some instances where there is an unusually high amount of PFAS found in biosolids. These instances are usually the result of certain types of manufacturing industries that use PFAS and discharge into wastewater treatment plants. It is these instances that typically make headlines.

### **What Do MBA Members Do With Their Biosolids?**





### ***If PFAS can show up in biosolids, what's being done to protect farmers and the public?***

The EPA implemented a PFAS Strategic Roadmap that covers actions to assess and manage the risks of PFAS in the environment, including biosolids. As part of this, a risk assessment was conducted on PFAS land application, and draft findings were published in January 2025 for 90-day public comment period. The risk assessment is not a new regulation but is typically the first step EPA takes to determine if future regulations are needed.

## ***Let's break down the approach and findings of the EPA's Risk Assessment***

### How the Risk Assessment was Done:

- Models were developed using research data that focused on the potential risks of two PFAS (PFOA and PFOS) in biosolids when land-applied or surface disposed.
- The Risk Assessment did not look at other ways humans are exposed to PFAS such as via cosmetics and cookware.

### Findings of the Preliminary Draft Risk Assessment:

- EPA notes that the results are preliminary and can change in the final Risk Assessment based on further scientific evaluations and public comments.
- There may be risks to farming families who consume most of their food and water from fields where biosolids are applied. **This is not reflective of typical farm practices.**
- It does not indicate risks to the **general public or the nation's food supply.**

### Key Points You Should Know:

- This is **not a new regulation**; It does not require farmers or landowners to take new actions.
- The assessment focuses on highly specific scenarios involving a hypothetical farm family, **not typical practices.**
- **Be aware that some reports might exaggerate or misinterpret** this preliminary assessment. The general public and the wider food supply are not at risk.
- Land application of biosolids continues to be a beneficial practice: The EPA and other agencies are continuing to research PFAS in biosolids. Following the comment period, the risk assessment will be finalized, and **EPA will determine if any regulatory action is necessary.**
- **Stay informed** on ongoing PFAS research from credible sources such as the US EPA, your state regulatory agency, and trade associations.

