

Biosolid Application and Local Government Regulation

Key Takeaways

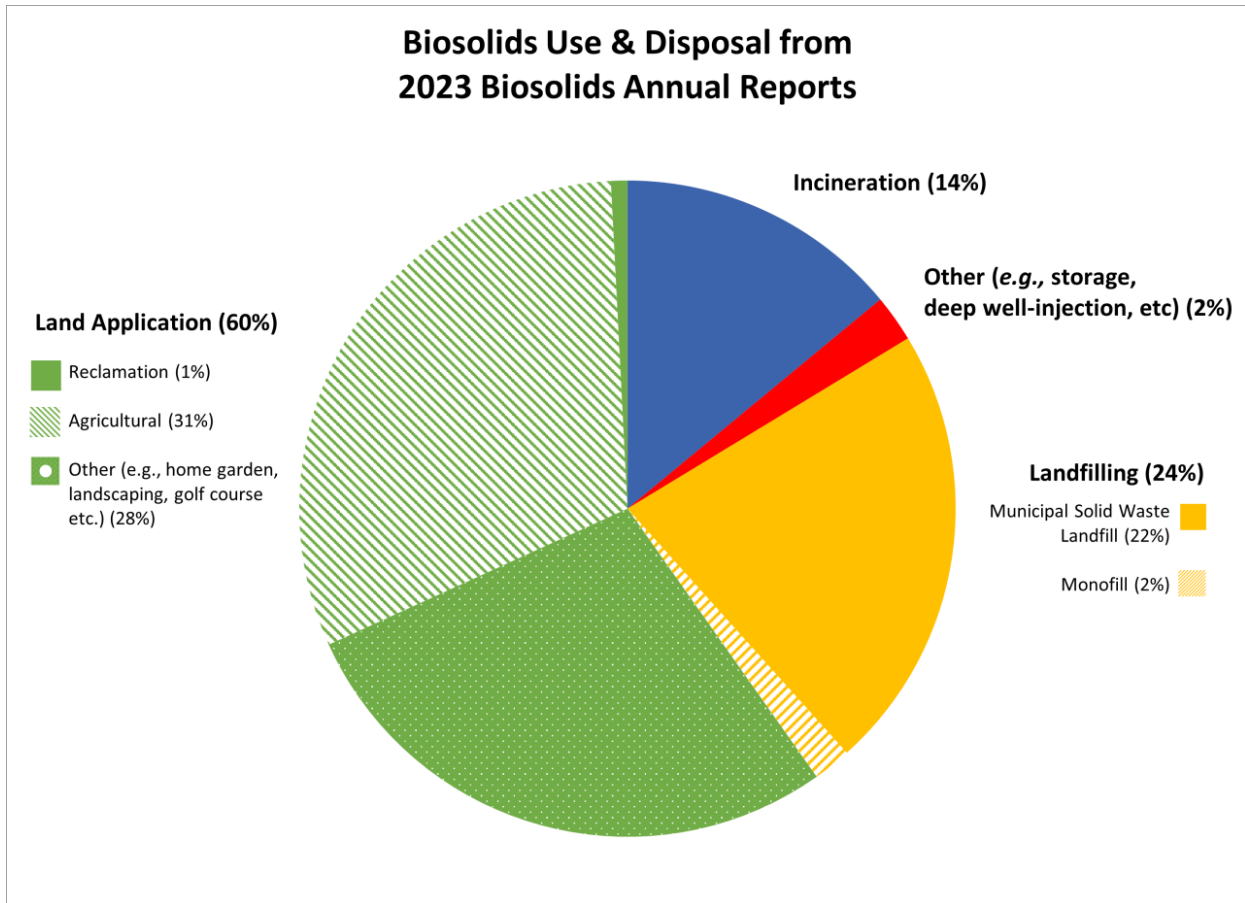
- Biosolids are nutrient-rich organic materials resulting from the treatment of domestic sewage in a wastewater treatment facility (i.e., treated sewage sludge).
- There are different classes of biosolids which are dependent upon the level of processing; typically, the higher class is associated with less smell.
- Biosolids application offers a unique opportunity for farmers to have access to fertilizer for a low cost, or even at no cost to the landowner. Utilizing biosolids does have potential risks, including heavy metal or PFAS contamination.
- Local governments have sought the ability to regulate the farm use of biosolids through state legislation.
- Farm Bureau policy opposes local governments gaining authority to regulate farm practices, including the application of biosolids.

Questions

1. Do you or farmers in your county use biosolids as fertilizer?
2. Have there been issues in your community surrounding biosolid application based on smell or safety?
3. Do you need additional information about biosolid applications?
4. What, if any, additional regulations should there be on biosolid application?
5. Should local governments have authority to regulate the farm use of biosolid application as fertilizer?

Background

Biosolids are the residuals left over from wastewater treatment facilities which have been treated to meet Environmental Protection Agency (EPA) standards and can be used as fertilizer and soil conditioners. Untreated residuals from wastewater treatment are referred to as sewage sludge. Generally, sewage sludge is disposed of via landfilling or incineration, while biosolids are treated and safely land applied to agricultural land, forests, rangelands, disturbed land in need of reclamation, or nonagricultural lands such as parks, golf courses, and home lawns and gardens.



Source: Environmental Protection Agency

To be land applied as biosolids, wastewater residuals must be treated to federal and state requirements. Land application of biosolids is regulated by both the EPA and Tennessee Department of Environment and Conservation (TDEC). There are three classes of biosolids which have specified requirements for vector attraction reduction, as well as general requirements and management practices, which are Class B Biosolids, Class A Biosolids, and Class A- Exceptional Quality (EQ) Biosolids. Class B Biosolids are treated to significantly reduce, but do not eliminate pathogens in sewage sludge, which is why there are additional requirements when Class B biosolids are applied. Class B biosolids may not be applied to lands with high potential for human exposure, limiting site access for humans and grazing animals, and harvesting restrictions, which allow time for further pathogen degradation. Generally, Class B Biosolids are associated with the most smell. Class A Biosolids are further treated to reduce the risk from pathogens present in treated sewage sludge; thus, there are fewer additional requirements for land application of Class A biosolids. Class A-EQ Biosolids meet the most stringent pollutant, pathogen, and vector attraction reduction limits set by the EPA and are often sold directly to the public for use in home gardens and on lawns. As with most things, the

higher the class, the higher the costs of processing for the wastewater treatment plant. For more information about EPA’s regulations of biosolids, scan the QR code.

Farmers typically acquire biosolids through a third-party contractor who has an agreement with the wastewater treatment plant to disperse the biosolids. Under most circumstances, the third-party contractor transports and spreads the biosolids on the farm, however, individual circumstances can vary. Often, the biosolids are provided to the farmer at little to no cost.

To spread biosolids in Tennessee, there must be a permit obtained from TDEC which has specific requirements including measures to protect water quality and ensure there is not overapplication for soil health. TDEC is under the process of updating the rules associated with the permit. Tennessee Farm Bureau Federation (TFBF) submitted comments in the regulatory process which supported the reissuance of the general permit for the land application of biosolids based upon policy. Two key points were made in public comments.

First, the University of Tennessee Institute of Agriculture (UTIA) conducted a study which compared using biosolids, broiler litter, and commercial fertilizer. In summation, the study found when using appropriate application rates, biosolids are a viable alternative to traditional commercial fertilizer. Furthermore, soil tests indicate buildup of metals is not a concern and can provide plants with available metal micronutrients such as copper and zinc. TFBF encouraged TDEC to consult with UTIA for questions, concerns, and recommendations for agronomic applications of biosolids.

Second, TFBF requested TDEC require testing of biosolids for chemical contaminants such as perchlorate and per- and polyfluoroalkyl substances (PFAS) which could put farms at risk. TFBF supports TDEC requiring wastewater management facilities to test for these chemicals on-site before giving farmers access to biosolids and other substances based on the best available science. Farmers and landowners who use biosolids should not be liable if PFAS is detected on their farm as farmers do not manufacture or knowingly spread PFAS on their farms. There have been instances in other states where biosolid application has led to unsafe levels of PFAS in the soil on farms. TDEC has indicated to TFBF the new

Read TFBF’s comments and view the study conducted by UTIA:



Read the 2022 Policy Development Paper on PFAS:



rules for the general permit will require testing for PFAS when the rules are completed later in 2025.

In recent years there have been several attempts at legislation which would allow a singular county to be able to regulate biosolid waste within their county. Specifically, the legislation would amend Tennessee Code Annotated 5-1-118 which prohibits county governments from regulating agriculture. TFBF has specific policy which opposes granting local governments the ability to regulate agriculture and the spread of biosolids. Generally, the county governments have expressed concerns about the smell, impact to water quality, and fear of PFAS contamination as what prompted the local desire for these new regulations. TFBF expects debate in the General Assembly surrounding how much government regulation should exist for biosolid application.

Policy

Tennessee Farm Bureau Litter and Waste (Partial)

Applying biosolids to fields from wastewater management facilities and alternative fertilizers from food manufacturing processes is a viable alternative to commercial fertilizer. Farm application of biosolids and alternative fertilizers should be regulated by the state government, not local governments. However, chemical contaminants such as perchlorate and per- and polyfluoroalkyl substances (PFAS) put farms at risk. Wastewater management facilities and food manufacturers should be required to test for these chemicals on-site and provide a copy of the complete analysis verifying the ingredients are legally safe before giving farmers access to biosolids and other substances and be held liable if found to cause financial damages to landowners. Landowners and farmers, including renters and lessees, should not be liable if these chemicals are detected on their farm.

Land Use Planning (Partial)

We oppose federal, state, or local legislation imposing land use regulations to qualify for federal grants and loans or to participate in other government programs. No government agency should have the right to control land use without specific legislative authority. Local governments should not use zoning or local government functions as a tool to regulate agricultural practices.

American Farm Bureau 506 / Waste Disposal and Recycling (Partial)

1. We support:

- 1.7 Government agencies responsible for approving land application systems allowing private agriculture to utilize municipal wastewater and sludge.

1.9.6. Provide farmers with an analysis of nutrients, heavy metals, and trace elements of biosolids applied to fields.

1.10. Government agencies must utilize proven current scientific information when developing policies concerning the application of sludge. The responsibility of this being required to rest with the waste handling authorities.

1.11. Each state having the right to require that all municipal biosolid applications be tracked using Global Positioning System (GPS) technology and be reported electronically.

1.12. Pathogen certification for sludge imported from out of state being supplemented with periodic in-state lab tests, with results transmitted simultaneously to the applicator, the farmer, and the government.

547 / Water Quality (Partial)

7.1. Landowners, producers or their lenders shall not be held liable for the cost of chemical contaminants cleanups, such as perchlorate and per- and polyfluoroalkyl substances (PFAS), caused by actions over which the producer, landowner or lender had no management oversight or control of decision-making.

7.2. We support:

7.2.1. Funding for research into the health risks and strategies for mitigating risks associated with chemical contaminants in water and food.

7.2.2. Using the best available science and appropriate risk assessment for the establishment of health goals or regulatory standards and recommend the science and risk assessment used are sound and correct.

7.2.3. Peer-reviewed, science-based research resulting in health advisory level recommendations and maximum contaminant levels for drinking water that are detectable and feasible to achieve.

7.2.4. Collaboration of agencies, universities, and the private sector to develop proactive solutions and technologies to reduce the human health and environmental risks of emerging contaminants such as PFOS/PFAS.

7.2.5. Establishing an indemnification program and funding to properly compensate farmers', producers' and/or landowners' financial losses associated with emerging contaminants such as PFOS/PFAS.

7.2.6. Eliminating any liability of agricultural producers and agricultural retailers/applicators for contamination by PFAS or forever chemicals on agricultural commodities or land.

7.3. We oppose:

7.3.1. Any legislation or administrative decision that releases the federal government (i.e., the Department of Defense) and their contractors and subcontractors from liability associated with pollution of their land, water, crops, livestock or products by chemical contaminants.