

Peer Review

# Review of: "Anaerobic Digestate as a Soil Amendment: Impacts on Crop Production, Soil Ecology, and Environmental Quality: A Review"

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This work provides an excellent and comprehensive review of the use of biogas plant byproducts, anaerobic digestates, and composts as substitutes for mineral fertilizers for soil. Based on extensive literature, it was demonstrated that the suitability of digestates for improving the physical, chemical, and biological properties of soil is high and strongly depends on the types of feedstocks.

An analysis of the impact of digestate composition (nutrients, P, K, N) on improving yields and properties of various soils, including impoverished and sandy soils, was conducted on short- and long-term scales. According to the authors, integrating composts and appropriately valorized digestates can be a way to produce good substitutes for mineral fertilizers. In the work, there is a lack of assessment of the impact of metals contained in AD fermentate obtained from sewage sludge on its use as a fertilizer.

## Declarations

**Potential competing interests:** No potential competing interests to declare.