

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 paper is a literature review of the interests and risks of using AD digestate as a fertilizer. It is very well written indeed: a lively and clear piece of writing, which is not so straightforward with such a subject involving complex interactions and trade-offs, and based on published studies sometimes contradicting each other. Another quality of this review is its neutrality: although this should be a requisite for every scientific paper, experience shows that many studies on AD adopt a bias (and probably unconscious) in favour of or against this technology. This is definitely not the case here; the author provides a very balanced analysis of the state of knowledge, exposing clearly the advantages and risks of this practice. This is clearly a useful paper for scientists in want of a comprehensive, yet relatively condensed, benchmark on the subject. My main comment is about the somewhat misleading introduction, where digesting and composting are presented as the only ways of agronomically using organic waste, and suggesting that the paper will focus on the comparison between the two. This is misleading in that (1) organic waste, and especially livestock manure and slurry, are often used raw, and (2) the paper also refers to papers comparing digestate with mineral fertilisers and raw manure and slurry, which is a good thing, of course. So I suggest that the author consider rephrasing the introduction a little bit to avoid this potential misunderstanding. I also found it a little bit frustrating, for the full understanding of the paper, that when referring to studies comparing digestate with mineral fertilisers, the type and form of the mineral fertiliser used is not mentioned. Again, these are minor comments, only meant to further improve the text. I approve without restriction the publishing of this paper.

Declarations

Potential competing interests: No potential competing interests to declare.