

Setting volume limits for on-farm composting

Problem encountered and objective

On-farm composting can improve soil health but remains constrained in Flanders by the absence of a tailored regulatory framework. As a framework is being developed, defining an appropriate maximum volume is a key challenge. Earlier proposals lacked an empirical basis and did not reflect variation across farm types. This work develops an evidence-based volume threshold.

Main Results and Outcomes

The analysis uses Flemish agricultural LPIS data to estimate compost needs based on farm size and type, using declared acreage as a proxy for demand. Results show strong variation across farm types: median farms (5,4 ha – 35,2 ha) typically require between 270 and 880m³ of input material, while larger farms (43,1 ha - 116 ha) may exceed 2,000m³. A reference threshold of 1,000 m³ per composting site appears sufficient for most farms and can also accommodate larger volumes through multiple composting cycles or sites.

Practical recommendations

- Promote on-farm composting as a viable practice to improve soil health, reduce input dependency, and support circular use of local biomass streams.
- Base volume limits on agronomic demand, using farm size as a simple proxy to reflect realistic compost needs across different farming systems.
- Use agricultural declaration data (e.g. LPIS) to estimate compost demand, as these datasets provide a robust and widely available empirical basis for setting thresholds.
- Consider different spatial scales (e.g. farm, cooperation, composting site), as each level serves different functions in organising composting and managing environmental impacts.
- Support cooperation between farms to enable efficient use of biomass and shared composting practices.
- Use per-site volume thresholds to regulate environmental risks, while allowing flexibility at farm or cooperation level.
- Full report: [Vandermaelen & Willekens \(2026\) Setting volume limits for on-farm composting.](#)



ABOUT SOILVALUES

SoilValues is a Horizon Europe project that will contribute to the development of successful soil health business models across the EU to improve soil quality and provide land managers with the necessary incentives.

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USEFUL LINKS

 <https://soilvalues.eu/>

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 <https://zenodo.org/communities/heuropesoilvalues>

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