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Demonstration of circular bio-based fertilisers and implementation of optimized fertiliser strategies and value chains in rural communities

POLICY BRIEF 1

Policy and legislation on circular bio-based fertilisers

Key messages

We highlight three key challenges related to the current EU legislation on bio-based fertilisers:

- The transition from the current regulation to the new Fertilising Products Regulation is challenging.
- Uncertainties hinder the development of new bio-based fertiliser products.
- The European Commission should ensure a level playing field for the development of bio-based fertilisers.

Point of departure

Europe emphasises the importance of bio-based fertilisers for improving soil quality and resilience while promoting more circular food systems. This emphasis is reflected in the Farm to Fork Strategy, which highlights the urgent need to reduce nutrient losses to the environment. Within this strategy, the European Commission identifies the production of bio-based fertilisers as a 'largely untapped potential for farmers and their cooperatives'.

The European Commission has funded several projects under the H2020 framework to advance bio-based fertilisers. These ongoing projects focus on diverse technologies and include bio-based fertilisers derived from animal- and plant-based waste streams. Investment in research and innovation continues with the new round of Horizon Europe Calls.

On 16th of July 2022, a new regulation significantly changed the landscape for the marketing of fertilising materials in the European Union. Replacing EC Regulation 2003/2003 and serving as the harmonised alternative to current national rules, EU Regulation 2019/1009 (Fertilising Products Regulation, or FPR) establishes the feedstocks and Component Material Categories for products such as fertilisers and plant bio-stimulants.

Problems encountered

Although the development and validation of technologies show great potential for innovations in bio-based fertilisers, legislation lags behind. The former EU Regulation 2003/2003 is primarily focused on inorganic fertilisers, while companies producing bio-based organic fertilisers, had to rely on national legislation. As announced in the Circular Economy Action Plan, the Commission proposed new legislation on fertilising products in March 2016. This proposal, which had been in preparation since 2010, has two objectives: (1) to incentivise large-scale fertiliser production from domestic sources by transforming waste into nutrients for

crops, and (2) to introduce harmonised cadmium limits for phosphate fertilisers. Although the final version of the proposal, the new EU FPR 2019/1009, repeals the 2003 Regulation, its overall principles remain largely unfulfilled.

Despite the extensive list of specifications for different fertiliser categories and the growing number of notification bodies in the EU, regulation continues to be a significant bottleneck for the introduction of bio-based fertilisers using organic feedstocks and innovative technologies, such as those being validated in the RUSTICA project. It would be beneficial to encourage communication between those who have recently requested or confirmed conformity and teams still in the development phase. Sharing best practices could facilitate the development and market introduction of bio-based fertilisers in Europe.

Moreover, innovative circular business models involving waste, animal by-products, or microorganisms still face restrictions. Legal rules governing these restrictions should be better communicated and aligned with current innovative technological solutions.

Furthermore, the international aspect of the fertiliser market requires attention. Europe must ensure a level playing field, not only among member states but also between the European Union and the rest of the world. Legislation should be straightforward and coherent, with controls in place to prevent unfair trading practices.

Finally, there is a lack of dialogue between European policymakers and stakeholders in the food system. Such dialogue could help policymakers develop market-aligned policies, that serve as a reality check. In this way, the conversation could contribute to setting realistic goals and formulating a policy framework that effectively stimulates changes in the food system, leading to more sustainable outcomes.

Request to policy makers

Legislation in Europe is designed to be aligned with the ambitions set forth in the Farm to Fork Strategy and the Green Deal. However, many obstacles currently hinder the adoption of innovation. There is a need for a clear assessment of which feedstocks and valorisation pathways are accepted for bio-based fertiliser production, and which are not. If the right environment is created, stakeholders are willing to share their insights, facilitating a productive dialogue.

The European Commission funds several projects and initiatives related to the development of bio-based fertilisers. However, consortia often struggle with the increasing complexity and uncertainty of legislation, leading to wasted time and resources. Coordinating efforts across consortia, supported by the European Commission, could provide valuable assistance in overcoming these barriers.