

Delisoil

Delivering soil improvers from circular food production processes to boost soil health



Delivering safe and accepted soil fertilisers in Italy: insights from SWOT and PESTLE analysis

Summary

Italy (especially Emilia-Romagna's Food Valley) offers strong conditions for circular fertilising products made from agri-food residues (e.g. tomato peels, wine lees, olive pomace). A key enabler is the concentrated, stable and relatively homogeneous feedstock supply from world-class food industries, which supports efficient logistics and consistent product quality. Alignment with EU and national circular-economy and climate objectives, together with public funding, helps R&D, pilots, and early market uptake. However, scale-up is constrained by high production costs (energy- and capital-intensive processing such as pyrolysis or advanced composting), strong price competition from low-cost mineral fertilisers, and farmers' scepticism regarding the efficacy and safety of new inputs. Administrative complexity, especially regarding end-of-waste criteria and environmental compliance, increases legal uncertainty and can discourage smaller actors.

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Farmers
Consumers
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Researchers
Policymakers

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Practical Recommendations

Compete on value, not price: target high-value markets such as vineyards, orchards, organic farming, and PDO/PGI value chains where sustainability and soil health offer price premiums. Build buyer confidence through field demonstrations, transparent performance data, and clear application guidelines. Improve process performance by integrating energy efficiency and, where feasible, energy recovery measures. Support enabling policies that streamline end-of-waste procedures and maintain transition funding to bridge pilot-to-market scale gaps.

Needs addressed by the practice

Enabling circular solutions, valorising vegetable and agri-food side-streams, developing high-quality fertilising products, reducing dependence on mineral fertilisers.

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About DeliSoil

The EU-funded DeliSoil project is a four-year initiative that aims to transform food industry byproducts into safe, sustainable, and tailored soil improvers. This project addresses two pressing challenges: the poor recycling of industrial food processing byproducts and the degradation of soil health.

By harnessing a circular approach, DeliSoil will contribute to improving soil health and productivity, supporting the EU Mission "A Soil Deal for Europe" and the Farm to Fork Strategy, as well as other Circular and Bioeconomy Strategies and Plans.



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