



FIELD TRIALS WITH SOIL IMPROVERS FROM REGIONAL FOOD PRODUCTION RESIDUES ACROSS EUROPE

AIM: The DeliSoil project aims to develop and test fertilizers and soil improvers made from regional food waste on arable land in real-life conditions. In order to test their potential for soil health improvement, their effect on the physical, chemical and biological properties of different soil types as well as the yield and quality of arable crops is being investigated.



DeliSoil stands for **Deli**vering safe, sustainable, tailored & societally accepted **Soil** improvers from circular food production processes for boosting soil health.

Waste and residues from food production contain valuable organic material and important plant nutrients. A potential that often remains underutilized. Returning these so-called sidestreams to arable land can improve soil fertility and increase the carbon sequestration. This reduces the use of mineral fertilizers and the consumption of nutrient and energy resources for their production.

The DeliSoil consortium is working to advance the EU Fertilizer Regulation's goal of bringing safe and high-quality recycled soil improvers to the market, while promoting the EU's "A Soil Deal for Europe" mission and the EU's Farm-to-Fork strategy for sustainable agriculture. Together with stakeholders from the entire food value chain, regional living labs and lighthouse sites are being established in five countries. Innovative approaches are tested there in various practical trials using residue streams from various regionally important food processing sectors, such as vegetables, meat, juice and wine.

EXPERIMENTS IN GERMANY

Field, incubation and greenhouse trials in Hohenheim, as well as on-farm trials in the region of Hohenlohe and the Swabian Alb.

- 5 main soil improvers (see pictures on the left)
- Up to 12 potential soil improvers in total
- 2 application rates: 1 t and 2 t per ha⁻¹
- 2 or 3 growing seasons

DATA COLLECTION

- Various parameters for determining soil fertility and soil nutrient dynamics:
 - Plant-available nutrients, micronutrients & heavy metals
 - Carbon (total, reactive & organic)
 - pH
 - Bulk density
 - Soil texture
 - Water holding capacity
 - Soil moisture
 - Electrical conductivity
 - Soil microbiome
- Phenological development (BBCH)
- Plant height
- SPAD measurements (chlorophyll content)
- Crop yield



EU-PROJECT
DeliSoil

DURATION
06/2023 – 05/2027

14 PARTNERS FROM
10 COUNTRIES



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GERINN
INNOVATION



FINNISH FOOD
AUTHORITY



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YARA

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