



Tackling Europe's food waste problem

Using tomato waste to make agricultural fertilisers.

After harvesting tomato fruits, large amounts of crop residues are left on the field (stalks and leaves). Waste is also generated during processing, due to immature, defective or damaged tomatoes (cull tomatoes). In Europe, the volume of post-harvest tomato waste is estimated at more than three million tonnes per year.

Composting is an efficient and environmentally safe, biological process, which can be used to turn organic wastes into soil fertiliser. This project has developed a process for using tomato waste to make solid and liquid fertilisers for the farming sector, which will increase soil fertility and improve crop health.

This project has built a flexible, multi-feedstock pilot plant (biorefinery) in the North of Italy which is making a range of products from tomato waste, including compost and hydrocompost as well as cutin, lycopene and biogas. An online stakeholder platform coordinates the provision of waste from regional producers to maximise pilot plant efficiency.

Get in touch:

For further information, visit www.agrimax-project.eu

An innovative approach

- Residues are shredded, mixed, watered and staked in piles, where natural microorganisms transform them into a stable solid organic fertiliser.
- Hydrocompost (liquid fertiliser) is produced by alkaline hydrolysis of mature compost.
- Pilot plant capacity to batch process 500 kg/h.
- 50-100% of the tomato waste arriving at the pilot plant is used.

Creating environmental, societal and economic impacts

The impact of the products is being assessed via; soil assessment tests, life cycle analysis, techno-economical assessment and a societal and ethical analysis. The new products will:

- Increase the value of crop and food processing residues
- Reduce disposal costs and waste to landfill
- Reduce dependence on non-renewable, inorganic fertilizers
- Improve carbon sequestration in soil.

