

The Green Farmer Co-operative: Leading the Charge in Sustainable Protein Innovation

The Green Farmer Co-operative in Tipperary announces their participation in a groundbreaking new project called SO-PLANTS undertaken by a consortium that includes Teagasc, UCC and MTU. This Department of Agriculture-funded initiative focuses on addressing sarcopenia in older, post-menopausal women by developing sustainable plant-based protein solutions. The Co-operative's involvement in this project highlights their role as a key player in the commercialization of protein extraction from waste sources on Irish farms. Here's what the spokespersons had to say about their participation and their vision for the future.

Q: Can you tell us about The Green Farmer Co-operative's role in the SO-PLANTS project?

Stephen O'Sullivan TFG Chair: "We're very excited to be part of the SO-PLANTS project and to sit on the Industry Advisory Board. Our involvement allows us to share our insights and experience in developing novel solutions related to extracting valuable proteins from crops like Duckweed that is grown on farm waste sources. It's an opportunity to lead the way in creating sustainable, high-quality protein solutions not only in Ireland but potentially on a global scale."

Q: What makes The Green Farmer Co-operative a good fit for this project?

Dan Long TFG Co-Founder: "The Co-operative is focused on innovative regenerative farming solutions that fosters a strong connection to the grassroots farming community here in Tipperary. Our young, dynamic farmers are eager to collaborate with top-tier research institutions like UCC, Teagasc and MTU, as well as industry partners across Ireland and beyond. Along with our partners we're developing methods to grow Duckweed and efficiently extract proteins from this plant that is grown on agricultural waste streams, which aligns perfectly with SO-PLANTS' goal of providing nutrition solutions from sustainable locally grown crops."

Q: How does the Co-operative's role on the Industry Advisory Board benefit the SO-PLANTS project?

Stephen O'Sullivan TFG Chair: "Being on the Industry Advisory Board gives us the chance to contribute directly to the direction of the project. It ensures that the solutions being developed are both innovative and practical for real-world application. We bring a deep understanding of the commercialization process for nutrition products, helping to guide the project's progress to ensure it delivers real value to consumers and the industry alike. It's a win-win—SO-PLANTS benefits from our expertise, and we gain insights into the latest research and trends in plant-based nutrition."

Q: What are some of the most exciting aspects of the SO-PLANTS project?

Stephen O'Sullivan TFG Chair: "One of the standout aspects is the development of pilot plant production for protein based beverages. It's not just about creating a product; it's about ensuring that it meets the needs of older women through rigorous testing, such as consumer acceptance studies and advanced preclinical models focusing on digestion and muscle absorption. The potential to address nutritional gaps in older women while creating sustainable options is truly inspiring."

Q: How does this project align with the Co-operative's broader goals?

Tom Long TGF Co-Founder: "At The Green Farmer Co-operative, we've always been focused on finding sustainable ways to add value to what farms already produce. This project aligns perfectly with our

mission of farmer-led sustainable agriculture that develops novel and compliant solutions to ensure a healthier and more planet-friendly way of farming. Producing high-quality, sustainable protein crops

like Duckweed aligns perfectly with the **SO-PLANTS** project. We see great potential for commercializing these plant-based solutions, which can benefit both Irish farmers and consumers around the world. Our hope is to set a new standard for the protein industry, emphasizing sustainability from the ground up."

Q: What does this mean for the future of the Co-operative and for Irish farming?

Tom Long TGF Co-Founder: "This project puts us at the forefront of a shift in agricultural innovation in Ireland. By being a part of SO-PLANTS, we're not just adopting new ideas—we're helping to shape them. Our involvement showcases the strength of Irish agriculture and the potential for farmers to lead in areas like sustainable protein production. We believe this will create new revenue streams for farms and position Irish products as premium choices in the global market."

Q: Any final thoughts on the collaboration between industry and research institutions?

Dan Long TGF Co-Founder: "Collaboration is key to tackling complex challenges like those addressed by SO-PLANTS. Working with experts from Teagasc, UCC, and other partners allows us to combine cutting-edge research with practical, on-the-ground knowledge. It's this blend of science and farming expertise that we believe will unlock new opportunities, not just for our Co-operative but for the entire agricultural community in Ireland."

The Green Farmer Co-operative's role in the SO-PLANTS project positions them as a leader in the sustainable protein space, proving that innovation can thrive alongside tradition. As they continue to work closely with research and industry partners, they are poised to transform how Ireland approaches agricultural waste streams, all while meeting the nutritional needs of an aging population.

About TGF

The Green Farmer Co-Operative Society Limited (TGF) is registered under the Industrial and Provident Societies Acts, 1893 to 2021.

It is a collaborative community led by Farmers and Bio-Economy professionals developing practical and compliant solutions in the new Circular Bio-Economy. TGF is laying the groundwork for farmers to develop practical solutions to thrive in the new Circular Bio-Economy.

Our organization fosters an environment of cooperation between farmers, scientists, entrepreneurs, regulatory agencies, traditional financial institutions and technology solution providers to accomplish our mission.

TGF is currently working with a cross section of Research Institutes, Commercial and State agencies and is committed to extending its network of Bio Economy partnerships locally and abroad.

Contact:

<https://greenfarmercoopltd.eu/>

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Appendix

About Duckweed

- Duckweed cultivation could be classed as an integrated farming approach as it is not only a solution for water remediation but also carbon sequestration, nutrient recycling, and production of a high-quality animal feed through processing the harvested duckweed thereby 'closing the loop' of nutrient recycling.
- Several small companies are developing duckweed cultivation on defined media as a human food and other researchers have used duckweed at a limited scale in animal and aquaculture feeds. Emerald bring the approach and technology to integrate duckweed waste water treatment with value from nutrient recycling at the scale needed to address water pollution at the national level in Ireland.
- Duckweeds evolved to take advantage of the minerals released by decaying organic materials in water. Contaminated waters that are high in P and K and an Ammonia source will suit duckweed cultivation. Researchers have shown duckweed cultivation effective in removing nitrogen and phosphorus from animal manure waste water.
- Current competitors use defined media pure cultures to increase protein concentrations. Using waste water, for example, aquaponic streams resulting lower costs we can compete in aquafeed and animal feed markets.

Duckweed Market Overview

- Duckweed is an alternative protein source for agri-food application. Preliminary investigation has demonstrated that amino acid profile of duckweed is comparable to those of land-based pulses currently being proposed as solutions to Irelands shortfall in domestically produced animal feeds.
- Duckweed protein will help to fulfil such demand and is currently an untapped source of plant proteins.
- Sales in the **Europe duckweed protein market** reached **US\$ 1.2 Mn** in 2021.
- The global duckweed protein market size is estimated to be **US\$ 62.9**
- The global duckweed protein market will reach US\$ 88.4 Mn in 2026.
- Sales are projected to increase at a 9.1% CAGR from 2022 to 2026.
- Europe accounted for 1.5% to 2.0% of the global duckweed protein market share approximately in 2021.

KEYWORDS:

Circular Bio economy, Regenerative Agriculture, Water remediation, self-reliance, Soya meal replacement, Stealing supply chains, EU commitments, Irish Agriculture policy,

Media:

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