

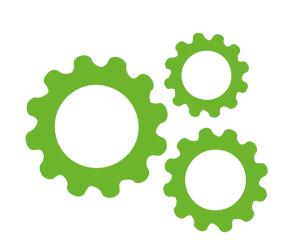




Operational Group

Biorefinery Glas - Small-scale farmer-led green biorefineries

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Practical problem

Reducing emissions and improving resource efficiency while offering farmers a diversification opportunity within the bioeconomy



Partners

Institute of Technology, Tralee (Research), University College Dublin (Research), GRASSA BV (SME), Carbery Group (Farmers), Barryroe Co-op (Farmers)



Calendar Start: 01/01/20

Start: 01/01/2019 End: 01/01/2021



Total amount: €940,948

Objectives of the project

Biorefinery Glas aims to improve the sustainability, value and resource efficiency of Ireland's livestock sector through farmer diversification into the bioeconomy. The project will demonstrate a replicable small-scale biorefinery with farmers in the West Cork Region. Through biorefining, perennial ryegrass is fractionated into a variety of new products in a process which improves the protein efficiency, value and sustainability of Ireland's grasslands.

Main activities

The project will demonstrate a small-scale grass biorefinery with Irish dairy farmers. The biorefinery approach converts freshly harvested grass into a range of products, including: an optimised cattle feed fibre, a non-GMO protein concentrate feed for monogastrics, a high-value sugar stream of fructo-oligosaccharides and a grass whey for fertiliser or bioenergy applications. The project demonstrates and evaluates an innovative business model for farm diversification into the circular economy and supports farmers with a range of knowledge exchange activities. The experiences of participating farmers will be documented through our Digital Storytelling Initiative for the bioeconomy.

Expected results

The project targets a 40% increase in usable protein per hectare. The project also expects to achieve a 25% reduction in nitrogen emissions in cattle excrement, with additional emissions savings through displacement of soybean feed imports with a grass-based monogastric feed. The project also expects to validate a viable diversification opportunity for farmers into the circular bioeconomy, by demonstrating a technology and business model that can be taken up by farmers.

Results so far/first lessons

Project is at the initial stages, first trials with Irish farmers will begin at end of June 2019.

Who will benefit

The farmers will benefit from the project by understanding about the operating principles and business case around small-scale grass biorefinery. The project aims to change the role of farmers within the bioeconomy from suppliers of biomass to producers of products. In this way farmers can diversify their product base. Irish livestock farmers can benefit from reduced emissions. Irish pig and poultry farmers can benefit from improved availability of indigenous grass-based monogastric feed.

Supported by:











Contact: Johan Sanders (GRASSA BV), James Gaffey (Institute of Technology, Tralee) Mail: johan@grassa.nl











