

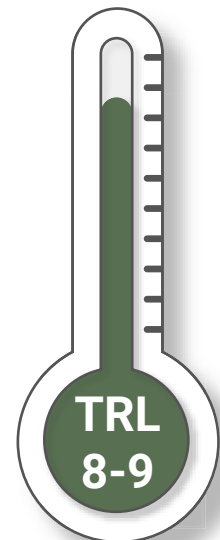
GO-GRASS

01 PRACTICE ABSTRACT

Production of protein concentrates - Biorefinery process and methodology



Technology
readiness level:



Target group

This is especially interesting for the stakeholders that want to replicate or seek inspiration in the Danish demonstration site to establish and operate green biorefineries. The main stakeholders are farming cooperatives and the farmers that deliver the grass. Larger renewable energy consortia and new food product developers also show interest.

Benefits and impact

The technology and processing methodology is already being implemented in commercial facilities around Denmark. The past three years two commercial sites have been attempting to adopt the technology and are constantly improving. New commercial activities will be started through a new Danish subsidy scheme. Aarhus University is helping with these activities to assure that the experiences and results are considered in the commercial implementation.

Description

The intensive testing, optimisation, analysis and experience at scale (Demonstration scale- 10 ton/hr input) has moved the technology significantly towards commercial sustainability. The result provides significant de-risking of commercial implementation as commercial activities can build directly on the processing methodology, analysis and experiences.



Watch the
[demosite video](#)



Challenges

The green biorefinery process and the products that it produces makes an economic incentive for farmers to grow perennial grassland and get all the environmental benefits associated with this (reduced nutrient leaching, sustainable nitrogen fixation, reduced pesticide use, increased soil carbon and increased biomass production per area). The process yields local protein feed that substitutes soya meal import and reduces the environmental impact of animal feed. The process co-produces biogas or biomethane that converts into heat and power or substitutes natural gas.

Solution

The production process has been tested and validated at demo-scale for the production of grass/legume leaf protein concentrates for monogastric animal feed. The GO-GRASS Danish demo Green Biorefinery has optimised and demonstrated the processing and methodology for the production of a local protein concentrate, to substitute soya meal in monogastric feed formulations and valorisation of fibre press cake and brown juice for ruminant feed and biogas production.

Team and contact

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This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N°862674



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