

Collaborative Programme Funding CPF II Project Spotlight

Project Spotlight: Transforming Whisky By-products into Sustainable Poultry Feed

Project: *Alternative Protein from Microalgae Fermentation – Turning Whisky By-products into Sustainable Animal Feed Solutions*

Lead Organisation: Scotland's Rural College (SRUC)

Industry Partner: MiAlgae

Stream: Proof of Concept 2

Addressing NAPIC Innovation Challenge: Unlocking Natures Potential

Can Scotland's whisky industry help reduce the UK's reliance on imported soy?

Today, poultry production depends heavily on imported soya bean meal and soya oil to provide essential protein and nutrients for animal feed. However, these ingredients are associated with deforestation, long-distance transportation and increasing pressure on global food systems.

This innovative project aims to develop a more sustainable alternative by transforming by-products from Scotland's whisky industry into a nutrient-rich microalgal ingredient using advanced fermentation technology.

Working together, SRUC and MiAlgae will evaluate how this novel feed ingredient performs in broiler chicken diets. The project will investigate whether it can replace both soya bean meal and soya oil while maintaining bird health, improving feed efficiency and enhancing the nutritional quality of chicken meat through naturally occurring omega-3 fatty acids.

By combining biotechnology with circular manufacturing, the project demonstrates how industrial by-products can be converted into valuable feed ingredients, reducing waste while creating a more resilient and sustainable food system.

This research could help reduce the environmental footprint of poultry production, strengthen UK feed security and accelerate the adoption of home-grown alternative protein solutions.

"This NAPIC funding provides MiAlgae, together with SRUC, with an excellent opportunity to generate the evidence needed to accelerate the adoption of MiAlgae's circular microbial ingredient in broiler feed. By evaluating the strategic inclusion of micro-algal biomass in broiler diets, the outcomes of this project will help reduce the environmental footprint of

poultry production, while strengthening the resilience, sustainability and competitiveness of this livestock sector."

Salvatore Galgano

Scotland's Rural College (SRUC)

Julian Pietrzyk

MiAlgae

Why this matters

- Reduces reliance on imported soy used in poultry feed.
- Converts whisky industry by-products into valuable alternative protein through fermentation.
- Demonstrates a circular economy approach that reduces waste and creates new value from industrial co-products.
- Supports more sustainable and resilient poultry production while improving the nutritional quality of chicken meat.
- Generates the evidence needed to accelerate commercial adoption of innovative alternative feed ingredients.