

## TEAGASC PHD WALSH SCHOLARSHIP OPPORTUNITY

### **"Capturing the agronomic, economic and carbon benefits of new Clover varieties into Carbon Profit Index"**

Walsh Scholarship Number 2022055

#### **Background**

Animal production from mixed swards of perennial ryegrass and clover exhibit improved production efficiencies leading to increased profitability on Irish ruminant farms. Additionally clovers reduce artificial nitrogen input, mitigating against the adverse effects of agriculture on the environment. Increasing the level of clover adoption on farm is a key action that will help Ireland achieve its emissions reduction targets of 51% between 2018–2030 and net-zero by 2050. The key objective of the PhD is to identify elite clover varieties capable of increasing ruminant production while also reducing the environmental impact of grass based systems.

The Pasture Profit Index (PPI) is a perennial ryegrass variety evaluation and selection tool developed by Teagasc and the Department of Agriculture, Food and the Marine (DAFM) in 2015. Within the PPI, variety performance is expressed as the additional profit generated by that variety and since its introduction the PPI has received industry wide support, particularly from commercial farmers who use the list to identify the best varieties for their farming system(s). Following on from the success of the PPI, a similar index is required to aid clover variety selection.

This PhD will examine current testing systems of clover varieties (both White and Red clovers) and will contribute to the development of new evaluation techniques of agronomic and environmental clover traits including quality and nitrogen fixation. A new clover variety selection index, the first of its kind in the world, will be developed that will identify the most superior clover varieties, ultimately influencing variety selection decisions on farm.

#### **Requirements**

Applications are invited from graduates holding or expecting an honours degree in Agricultural Science or related disciplines. The successful candidate should be highly self-motivated, prepared for field work and have knowledge of conducting research trials.

#### **Award**

The PhD Scholarship is a joint research project between Teagasc, Moorepark and the School of Biological Sciences, Queens University Belfast (QUB). The student will be based at Teagasc, Moorepark, Co. Cork and will be registered at QUB, working under the supervision of Dr Michael O'Donovan (Teagasc) and Dr. Trevor Gilliland (QUB). The Scholarship will start Autumn/Spring 2022/2023. The Walsh Scholarship funding is €24,000 per annum and includes University fees of up to a maximum of €6,000 per annum.

#### **Further Information**

Dr Michael O'Donovan, Teagasc, Grassland Science Research Department, Animal & Grassland Research and Innovation Centre, Moorepark, Fermoy, Co. Cork, Ireland  
Phone +353 (0)25 42395      email: [michael.odonovan@teagasc.ie](mailto:michael.odonovan@teagasc.ie)

#### **Application Procedure**

Applicants should submit a CV and covering letter detailing their qualifications and experience by email to Dr Michael O'Donovan ([michael.odonovan@teagasc.ie](mailto:michael.odonovan@teagasc.ie)).

#### **Closing Date**

30<sup>th</sup> September 2022.