TEAGASC PhD WALSH SCHOLARSHIP OPPORTUNITY

“VistaMilk 009: Grassland agronomy practices to increase the persistence of white clover in grazed pasture”

Walsh Scholarship Ref Number 2020048

Background
The VistaMilk SFI Research Centre represents a unique collaboration between Agri-Food and ICT research institutes and leading Irish/multinational food and ICT companies. The Centre is hosted by Teagasc, the national agency with responsibility for agriculture and food research, in partnership with the Tyndall National Institute, Ireland’s national microelectronics institute, the Telecommunications Software & Systems Group (TSSG) at Waterford Institute of Technology and the Insight Centre for Data Analytics (at UCD, NUIG, DCU). VistaMilk is funded by Science Foundation Ireland (SFI), the Department of Agriculture Food and the Marine (DAFM) and the European Regional Development Fund (ERDF).

Ireland’s competitive advantage in milk and meat production is based on the efficient production and utilisation of grazed pasture. Increases in primary production targeted under FoodWise 2025 and Food Harvest 2020 must be achieved through the use of pasture-based systems if Irish producers are to be profitable. Perennial ryegrass-white clover swards are beneficial in terms of milk and herbage production. Nitrogen (N) fixation in grass-white clover swards can make N available for herbage production, reducing the requirement for N fertiliser and thereby contributing to economic and environmental sustainability. One of the challenges for farmers is incorporating white clover into swards either through reseeding or oversowing. Defoliation management (grazing or mechanical harvesting) can affect herbage production and white clover content and persistence. This project will examine different reseeding and over sowing methods, and the effects of defoliation management on seasonal and annual herbage production, white clover content, stolon mass and tissue turnover in grass-white clover swards. In addition, the interaction of soil rhizobia with white clover most likely influences its establishment and persistence. Therefore, type of rhizobia present in Irish grassland soils will also be examined.

The PhD project will involve, amongst other tasks, field plot based experiments, pasture measurements, herbage analysis, laboratorial approaches such as in vitro germination tests, early development and growth assessment under controlled conditions, data collection and statistical analysis; reporting and publishing findings at (inter)national conferences and industry meetings; participation in dissemination activities; preparation of papers for publication in peer-reviewed journals; preparation of a thesis.

Requirements
Applications are invited from graduates holding or expecting a First Class Honours or a Second Class Honours Grade One degree in Agricultural Science, Plant Science or related discipline. The successful candidate should be highly self-motivated. The Walsh Scholar will take part in wider VistaMilk Centre activities such as annual conference, relevant Master classes and workshops, and Education and Public Engagement activities. A minimum level of competency in English is required. Please see the following link with regard to English Language requirements (https://www.ucc.ie/en/study/comparison/english/).

Award
The Scholarship is joint research project between Teagasc, Animal and Grassland Research and Innovation Centre, Moorepark, Fermoy, Co. Cork and University College Cork (School of Biological, Earth and Environmental Sciences). The student will be based at Teagasc Moorepark and registered at UCC. There will be some laboratory work undertaken at the School of Biological, Earth and Environmental Sciences at UCC. The student will be under the supervision of Drs Deirdre Hennessy and Brian McCarthy (Teagasc) and Dr Rossana Henriques (UCC). Ultimately the PhD will be awarded by UCC. The Teagasc Walsh Scholarship funding is €22,000 per annum and includes University fees of up to a maximum of €6,000 and is tenable for 4 years.

Further Information/Applications
Contact: Dr. Deirdre Hennessy, Teagasc. Email: Deirdre.hennessy@teagasc.ie, Phone: +353 25 42297 or Dr. Rossana Henriques, UCC. Email: rossana.henriques@ucc.ie, Phone: +353 21 4904561

Application Procedure
Applicants should submit a curriculum vitae detailing qualifications, experience and including contact details for at least one academic referee and cover letter by email simultaneously to: Dr. Deirdre Hennessy - Deirdre.hennessy@teagasc.ie and Dr. Rossana Henriques - rossana.henriques@ucc.ie. A short list will be created based on applications received and interviews will take place in June.

Closing date for application: 31 May 2020