TEAGASC PhD WALSH SCHOLARSHIP OPPORTUNITY

“Soil carbon sequestration in grassland production systems”
Walsh Scholarships Ref Number 2020015

Background
Soils are the world’s largest terrestrial carbon reservoir, containing approximately 1500 Pg C of organic carbon, and are an integral part of the global carbon cycle. Increasing the amount of carbon in the Earth’s soils by 0.4% per year could reduce global carbon emissions and help mitigate climate change. The majority of Ireland’s temperate agricultural soils are covered by grass, about 90%. Farmland under permanent pasture, in temperate regions, generally contains large amounts of carbon. This type of land is also capable of extracting carbon from the atmosphere and locking it up in the soil through a process known as carbon sequestration. Ireland’s agricultural sector is keen to enhance this process and expects sequestration will play a key role in fulfilling the sector’s climate commitments and Foodwise 2025 production goals.

The Walsh Scholarship is part of ‘Pasture Stores Carbon’, a joint research project between Teagasc, Johnstown Castle, and the Department of Geography, Maynooth University. The research is seeking to assess, apply and evaluate the use of biogeochemical model(s) for simulating soil carbon sequestration over temperate grassland systems. A key outcome of the research will enable the agriculture sector to evaluate the impact of farm management practices and new technologies on the rate of carbon sequestration and feed into the development of farmer decision support tools to underpin future agriculture and climate change policy.

Throughout the PhD, the student will receive graduate training and will complete a number of courses tailored towards their area such as project management, mathematical modeling, statistical analysis, spatial analysis, scientific writing etc. which will be beneficial to their future career.

Requirements
Applicants should have a good primary degree (First or Second Class Honours) or masters in an appropriate discipline (Geography, Environmental Science, Agricultural Science etc.). Candidates whose degree was not taught in English must meet the University’s minimum language requirement. Applicants should have an understanding of soil carbon dynamics and agro-ecosystems. Experience in modelling biogeochemical cycles would be advantageous, but not essential. The successful candidate should be enthusiastic and self-motivated, and be prepared to work independently or as part of team. A full driving licence, valid in Ireland, is also desirable. An ability and interest in cooperation with colleagues in other sciences is vital.

Award
The PhD scholarship is a joint research project between Teagasc and Maynooth University (MU). The student will be co-located between Johnstown Castle (Wexford) and Maynooth University (Kildare) and will be registered at Maynooth University, under the supervision of Dr. Rowan Fealy (MU) and Dr Donal O’Brien, Dr Gary Langian, Dr Elodie Ruelle and Dr Laurence Shalloo (Teagasc).

Periods of field work may also be required at various locations around the country.

The successful candidate will also be expected to participate in Walsh Scholarship events organised by Teagasc.

The scholarship funding is €22,000 per annum including University fees, up to a maximum of €6,000 per annum, and is tenable for 4 years.

Further Information/Applications
Dr Rowan Fealy Phone + (01) 708 4562; email: rowan.fealy@mu.ie.
Dr Donal O’Brien Phone 053 917 1217; email donal.mobrien@teagasc.ie

Application Procedure
Submit an electronic copy of Curriculum Vitae and a letter of interest simultaneously to:
Rowan Fealy email: rowan.fealy@mu.ie and
Donal O’Brien email donal.mobrien@teagasc.ie

Please quote Walsh Scholarships Ref 2020015 in the email subject line.

Closing date
15 June 2020