



SMARTSWARD: FUTURE PROOFING IRISH LIVESTOCK SUSTAINABILITY

RSF: 17/S/267

“The impact of sward composition and management on productivity and quality of herbage”

SMARTSWARD is a multidisciplinary transnational research project funded by the Department of Agriculture, Food and the Marine, the Department of Agriculture, Environment and Rural Affairs, and commercial industry to support the sustainability of Irish pasture based production systems. Would you like to join an internationally recognised team of experts in the area of pasture based production as one of seven PhD researchers to be recruited to this project?

Background

Reseeding advice and subsequent sward management and productivity in the RoI almost entirely revolves around perennial ryegrass (PRG) usage. This species currently accounts for 95% of forage grass seed sales per year. PRG has many positive traits including the ability to yield high levels of good quality forage and to recover quickly following defoliation. However, it is also a nitrogen (N) demanding grass that quickly disappears from the sward when N levels become limiting. N inputs represent a significant direct cost to farmers and also contribute to wider environmental problems. Results from the SmartGrass project have shown that the dry matter yield potential from multispecies grasslands, containing different plant functional groups and managed at relatively low N input levels has been greatly underestimated, and where legume content of these swards is sufficiently high, they may even outyield PRG monocultures receiving high N inputs. However, little information is available regarding appropriate management strategies for these swards to ensure optimum on-going performance in terms of dry matter yield, nutrient value and persistence of species, particularly under grazing systems. If adoption of multispecies swards is to be promoted on Irish farms, then it is essential that scientific research underpins the management recommendations associated with their use. Reliable information regarding the appropriate on-going management (e.g. cover at grazing, post grazing height etc) of these swards must be available, such that their potential value can be realised by farmers.

Objectives

- To determine the effect of sward species composition and associated levels of N inputs on dry matter yield, nutrient value, botanical composition and species persistence under a beef grazing system.
- To determine the effect of defoliation interval and residual on annual and seasonal dry matter production, nutritional value of herbage, plant physiology characteristics and botanical composition of different sward types.
- To develop a rapid screening technique to determine the nutrient content of multispecies swards.

Requirements

Applicants should have a good primary degree (First or Second Class Honours) or M.Sc. in an Agricultural Science or a related discipline. The successful candidate should be highly self-motivated and be prepared for laboratory work and extended periods of field work with modern analytical equipment.

Award

The student will be based, in the first instance, at UCD Lyons Farm, Celbridge, Co. Kildare and will be registered at University College Dublin, working under the supervision of Dr's Helen Sheridan and Bridget Lynch alongside the wider SMARTSWARD team. The Fellowship will start in the last quarter 2018 / first quarter 2019. The funding provides a stipend of €18,000 plus a University fees contribution of €6,000

Further Information/Applications

Dr Helen Sheridan, email: helen.sheridan@ucd.ie; Dr. Bridget Lynch, email bridget.lynch@ucd.ie

Application Procedure

Submit an electronic copy of Curriculum Vitae and a letter of interest simultaneously to the above prior to **August 17th 2018**