

2024 Masters in Agricultural Innovation Support

Project Summary

1. Project Title and Associated Programme

Project title

Encouraging technology sharing arrangements in high nature value upland farming systems

2. Project background

A key objective of the Rural Development Programme (RDP) is to enhance the competitiveness and economic viability of farms and holdings. However, access to modern technology can often curtail the development of one agricultural enterprise, while reducing the environmental sustainability of another. Issues such as climate change, water quality status and poor farm incomes further challenge farm family businesses. Technologies exist whereby farmers can farm in a sustainable manner, sympathetic to their local environment.

Our upland farming systems are among the most important when looking at biodiversity, water quality and habitats. Technologies for upland grazing systems will help to ensure the preservation of our highest nature value systems and maintain key elements of their ecosystems. Technologies such as no fence grazing collars, Mulching equipment for vegetation instead of burning, low ground pressure machinery, GPS monitoring equipment and mobile livestock equipment (mobile dipping units etc.) have the potential to ensure valuable key assets are maintained and improved yet are outside the financial reach of individual farmers.

Agreements involving the sharing of machinery are relatively common but sharing of new technologies in an extensive, sometimes remote and challenging environment have not been studied in great depth. These areas often lack the supply of contractor services or outside contractors may lack knowledge of the terrain making work potentially dangerous to operators and the environment. The project aims to address this potential in an area identified as high nature value. Sustained innovative collaborative farming arrangements offer a new route to access limited resources for farmers. Understanding these relationships and methods in use will help deepen industry knowledge and foster encouragement of these arrangements.

3. Project aims and objectives

The project will aim to understand the successful workings of and identify barriers to the operation of arrangements between users so as to maximise limited resources. Specific objectives are:

1. To gain an understanding into the relationships required for sharing resources to manage high value nature land;
2. To identify the drivers and barriers that influence farmers participating in these arrangements
3. To develop a support tool for KT advisors working in high nature value landscapes when examining the opportunities for using technology sharing arrangements among farmers.

4. Suggestions for methodology

The study will examine existing and potential local arrangements between farm holdings within a specified region, involving the sharing of technology. The XXX uplands is the area proposed for the research participants. This will build upon collaborative relationships build by farmers who participated in the SUAS EIP while also including farmers not previously involved in SUAS or similar cooperative relationships. Proposed research methods will be a mixture of quantitative and qualitative approaches. Participants will provide key information on the development of trust within an arrangement and personal experiences, both positive and negative, on the operation of such arrangements through face-to-face interviews, focus groups (qualitative) and farmer surveys (quantitative).

Various financial, productive and environmental parameters will be examined on the participant farms to establish the economic viability and productive sustainability of these arrangements for the stakeholders involved. Desktop exercises studying the operation of similar arrangements in other countries may also provide relative information.

5. Expected impact of the project

This project can provide valuable information and help achieve best practice and innovation at farm level. The Teagasc KT Programme objective of encouraging sustainable farming is met by helping to develop grazing systems designed to maintain or reduce production costs and produce food while ensuring the protection of the rural environment, including water quality, bio diversity of the landscape and the habitats.

The Technologies used are of varying types and functions and some of those envisaged also would include promotion of animal welfare (health monitoring/ handling equipment). The improvement of health and safety of the operators in this difficult workplace environment is also an important objective. Technology or Alpine machinery which increases capacity of work, removes manual labour or by its design is safer to operate than machinery the farmer could otherwise afford it is an important goal to aim for. Finally a key outcome will be to develop a tool for advisors in other parts of the country to progress opportunities they encounter among farmers in similar circumstances to share and use new technology.

6. Other relevant information

