

Livestock Systems Department

Title

Improving the productivity of heavy wet grassland for delivery of Food Harvest 2020

Abstract

Producing milk and beef from grazed grass is an important part of the Irish Economy. However, grazing on heavy wet soils can be problematical and farms with heavy wet soil have limited productivity and higher costs of production. Wet soil conditions have been identified as the most important factor limiting the utilization of grazed grass on Irish farms. It has been projected that most of the increase in milk production after the abolition of the milk quota will come from existing dairy farms, many of which are on heavy soils in traditional dairying areas in higher rainfall parts of the country. During three consecutive years (2007 to 2009) with exceptionally high rainfall the lack of expertise in Ireland on up-to-date best management practices for farming on heavy wet soils was brought into sharp focus. This project will contribute to building expertise. There are clear productivity gains to be made by solving the problem of wet soil by artificial drainage once it is done cost effectively and with minimal environmental impact. The tasks in this project will evaluate the impact of artificial drainage of a heavy wet soil on pasture production, the length of the grazing season and the profitability of milk production. Potential impact on the environment will be assessed in terms of greenhouse gas emissions, change in soil carbon storage and nutrient and sediment loss to water. End of pipe solutions to nutrient and sediment loss will be tested and refined. The fifth task will involve a survey of 30 dairy farms on heavy wet soils. The potential for increasing milk output will be assessed in terms of environmental impact and economic returns. Best management practices for increasing the productivity of grassland on heavy wet land with little or no increase in environmental impact will be defined.

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