

# Livestock Systems Department

## Title

Technologies to increase the productivity of dairy farming on heavy soils

## Abstract

Approximately 30% of milk produced in Ireland originates from farms where soils are classified as heavy. An added complexity of heavy soils is that they are generally situated in high rainfall regions. On heavy soils the rate of infiltration at the soil surface is regularly exceeded by the rainfall rate due to either low hydraulic conductivity in the subsoil (or a layer of the subsoil), high water table due to low lying position and poor/poorly-maintained outfall or upward movement of water from seepage and springs. The objective of land drainage is the removal of excess water from the soil resulting in an improvement in trafficability and the development of a favourable root zone for plant growth. Teagasc in 2010 set up a Heavy Soils programme with the aim to improve the profitability of dairying on heavy soils. Factors identified as limiting productivity on heavy soil farms included poor drainage infrastructure, low level of soil fertility (P, K and pH), excessive levels of soil poaching, low levels of ryegrass in pastures and poor grazing infrastructure; all culminating in low levels of grass production and utilisation. This project will develop technologies to increase both grass production and utilisation on heavy soils.

**Project Leader:** Pat Dillon

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