

# Livestock Systems Department

## **Title**

Operation and economics of automatic milking in an Irish grass-based system

## **Abstract**

Currently, many Irish dairy farms are focused on herd expansion and efficiency. But skilled labour is scarce and expensive and milking presents a significant constraint on quality of life issues. Automatic milking (AM) could present a potential resolution. Current work has shown that it is possible to integrate AM into a grass-based system and has also identified a range of factors that can impact on the efficiency of operation of AM in a cow grazing scenario. These factors include milking frequency of 1.5 or 2.0 milkings/day, different supplementation levels, regulation of cow visits to the AM unit in order to reduce the occurrence of milking intervals of >16h, together with energy usage and labour requirements. They impact on either cow performance within the system, cost of production or both. So it is crucial to conduct economic analysis for different operational parameters of an integrated AM and grazing system in Ireland. Appropriate model(s) will be used to evaluate the impacts of different innovative management, feeding and grazing technologies, in order to optimize milk production and efficiency. The interaction between capital investment, labour requirements and running costs will be calculated using the Moorepark Dairy Systems Model.

**Project Leader:** Bernie O'Brien

## **Programme/Subprogramme/RMIS Number:**

AGRIP – Moorepark-Livestock Systems – Precision Farming System-6642

**Start Date:** 02/01/15      **End Date:** 31/12/17