

Grassland Research Programme – Sust. Prod Systems & Systems Analysis
RMIS No. 5891

Title : An evaluation of the effect of stocking rate, calving date and nutrient management practice on the productivity of intensive spring milk production systems post milk quota

Abstract

The introduction of quota capped production on dairy farms and focused producers on increasing profitability per litre of quota by reducing production costs. Recent analysis carried out within the EU has suggested that milk quotas are now constraining the development of an efficient European dairy industry. When milk quotas are removed, other factor inputs will become limiting such as land, stock, supplementary feed or labour availability. Quota removal will require new innovative blueprints which facilitate the expansion of profitable milk production systems taking cognisance of overall farm productivity, economic efficiency and environmental and animal welfare sustainability. Among the many factors influencing system productivity, the identification of the optimum stocking rate is the most important single influence due to its effect on milk production per hectare and grazed grass utilisation. Coupled with this requirement for increased productivity, the environmental consequences of intensified production systems must be quantified in terms of the influence of stocking rate on artificial fertilizer requirements, slurry management and ultimately on nutrient use efficiency. The objective of this project is to quantify the biological and financial effects of alternative stocking rates and nutrient management practices on pasture-based dairy production systems for the Irish dairy industry within the context of milk quota abolition.

Project Leader : Horan, Brendan
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