

Grassland Science Department

Title

Incorporating white clover into intensive grass based dairy and sheep production systems

Abstract

The production targets of Food Harvest 2020 must be achieved against a back drop of increasing input prices and environmental restrictions (e.g. Nitrates Directive, Water Framework Directive, etc.). Farmers will have to become more efficient in their production systems if they are to remain viable and profitable. The increased milk production (50%) and sheep meat product value (20%) targets of Food Harvest 2020 must be achieved on grass based systems if Irish producers are to be profitable. Incorporating white clover in to grazing swards for milk and sheep meat production will provide an additional source of nitrogen for herbage production; provide high quality forage, particularly in the second half of the grazing season; and will therefore contribute to economic and environmental sustainability of grass based production systems. At farm level there is increasing interest in the inclusion of clover in swards for milk and sheep meat production. Recent experiments at Moorepark indicate that there are herbage production, and milk production benefits to be gained from clover inclusion in grass swards. This project will examine the herbage production potential of grass clover swards at different N application levels; identify appropriate sowing rates of clover; explore the relationship between clover and nitrogen fertiliser in a diploid and a tetraploid sward; quantify nitrate leaching from grass clover swards; examine the dynamics of clover incorporation into grass swards grazed by dairy cows and sheep. The data generated in this project will be applicable to dairy, sheep and beef production systems and will therefore also contribute to the sustainability of these industries.

Project Leader: Deirdre Hennessy

Programme/Subprogramme/RMIS Number:

AGRIP – Moorepark Grassland Science-Grazing Management incl. conservation-6515

Start Date: 1/1/14 **End Date:** 31/12/18