Grassland Science Department

Title

Evaluation of DM yield performance, persistency and longevity of grass cultivars at farm level and the development of a grass DM production database

Abstract

Grass breeding has increased grass DM production by 0.5% per annum, this gain has been measured in plot studies with have been exposed to no animal influence. This is totally different to what happens in a grazing situation. It is widely accepted that grass production will be lower under animal grazing than in cut plots. No temperate grassland country has yet undertaken to predict what impact grass breeding has had on commercial DM production at farm level. This requires the creation of a centralized grass production database to capture grass DM production data from grassland farms. This database would bring together vital grass production data which will influence the industry on how grass cultivars perform in the commercial environment. This would provide the potential to evaluate the performance of grass cultivars taking regional variation in terms of soil types, location, systems and stocking rates into consideration. Further research is required to validate the economic values which will be assigned to cultivar persistency and overall longevity. Sward persistency is likely to be the most economically sensitive trait within the grass selection index (McEvoy, 2011), however there is little research data available on the persistency and longevity of grass cultivars in recommended lists or breeding programs. By combining on farm evaluation of grass cultivars with grazing plot research it will be possible over time to establish the relationship between grass DM production, persistency and longevity of grass cultivars.

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