

***Title:***

Assessing the dry matter yield, quality, persistence and compatibility of perennial ryegrass in pure stands and mixtures with and without white clover.

***Abstract***

Current variety testing evaluates the performance of grass varieties in monocultures under a simulated conservation protocol. When reseeded, a mix of three to four varieties is usually selected. Recently new grass varieties with unique grass growth characteristics (e.g. increased over winter growth) have been developed. There is a gap in our knowledge regarding the appropriateness of sowing these varieties as monocultures or mixed with other varieties with differing traits, to induce a synergistic effect. This project 1) will screen known varieties to allow accurate identification of the plants sown in mixtures; 2) will assess the dry matter yield, quality and persistency of varieties and white clover when sown in mixed swards compared to monocultures; 3) will establish the optimum sowing rate for individual cultivars in mixed swards, and the contribution of each cultivar to DM yield; 4) will assess the DM yield performance and persistency of ryegrass varieties and white clover sown on-farm in monocultures and ryegrass/white clover mixtures integrating the information generated in previous tasks and 5) will allow the creation of a database providing information on cultivar performance with and without clover under grazing at commercial farm level. This project will provide clear guidance to the grassland industry on the relative advantages of mixtures over monocultures or vice a versa.

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***Expected finish date:*** 31 December, 2014