

Title: Farming for the Future; Lowland Grassland Management for Biodiversity.

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Abstract:

(Max 250 words)

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Grassland is Ireland's most expansive terrestrial habitat type covering >75% of the land cover but its biodiversity is under serious threat of agricultural intensification or land abandonment. While the decline in Irish grassland biodiversity has been recognised, there is a paucity of research into the restoration of lowland mesotrophic grassland. Most of Ireland's grasslands are privately farmed mainly for pasture, therefore, appropriate agricultural management techniques for biodiversity restoration are vital. The purpose of this research was to first classify the lowland grassland vegetation in Killarney National Park, Co. Kerry in the west of Ireland (Approx. 244ha). Then to investigate selected management regimes that are the most effective for spontaneous regeneration of lowland grassland vegetation diversity,

A baseline study has shown that the grasslands are currently of low biodiversity value, with pockets of ideal communities. The species richness was found to be moderately low (median: 16/4m²) across most community classifications. The grasslands primarily grazed by cattle had the lowest species richness (13.5/4m²).

Three management regimes (mowing, extensive grazing, and mob grazing) are currently in place across semi-improved and abandoned grasslands. The seedbank is also under analysis to indicate if it still has a diverse reservoir of species for restoration.

We suspect that seedbank may be depauperate of rare species as grassland seedbank analysis outside of Ireland has shown. However, we predict that with the regimes in place, the species richness of previously intensively managed fields will increase, the cover of previously sown commercial species will slowly decrease, and the communities will begin diversifying.