SUPER-G – Developing sustainable permanent grassland (PG) systems & policies

Future pathways for grassland management

Paul Newell Price & the SUPER-G consortium

GO-GRASS FINAL EVENT Unlocking the Potential of Grass: New business opportunities for rural areas 12th March 2024



Outline

- What range of ecosystem services can grasslands deliver?
- The importance of multifunctionality
- Influencing factors
- Future pathways for grassland management



Grasslands can deliver a range of ecosystem services

• Food production



• Water quality



 Biodiversity & pollination



Mediation of water flows & erosion control



• Climate regulation



• Landscape & recreation



Conclusions of large-scale integrated systematic review

Schils *et al.* (2022) Permanent grasslands in Europe: Land use change and intensification decrease their multifunctionality, *Agriculture, Ecosystems & Environment*

- Preventing the conversion of permanent grassland to cropland or temporary grassland secures the provision of multiple ecosystem services
- Intensification of existing permanent grasslands threatens multifunctionality
- Prioritizing non-feed ecosystem services comes at a cost for the provision of animal feed



Multifunctional permanent grasslands increasingly important in agricultural systems



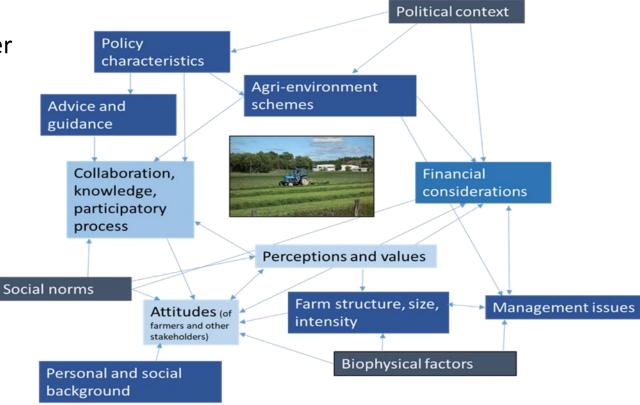
Protection needed to prevent further decline



Optimise management intensity on existing permanent grasslands

Unlocking their potential for multifunctionality

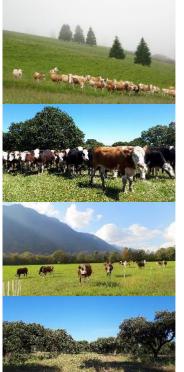
A conceptual map of factors affecting farmer decision-making in relation to grassland management



Future pathways – *less is more*?

- Less reliance on fertiliser
- Less reliance on purchased feed
- Less focus on specialist breeds
- Better grass utilisation
- Integrate livestock into arable rotations
- Lower cost and energy base
- Policy that recognises the value of ecosystem services
- From exploitation to stewardship

- More legumes
- Focus on meat & milk from grass
- Greater focus on hardy, 'easy care' & native breeds
- Forage systems that are more resilient and sustainable
- Greater rewards for cultural ecosystem services
- Where less demand for meat & dairy products:
 - Bio-based industries?
 - Re-wilding?



"Because we have the capacity to ruin the biosphere on which we depend, we have the necessity to steward it" - Daniel Schmachtenberger, 2024



Thank you!

On behalf of all colleagues from the SUPER-G team

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THIS PROJECT HAS RECEIVED FUNCING FROM THE EUROPEAN UNION' HORIZON 2020 RESEARC AND INNOVATION PROGRAMM DEB GRANT AGREEMENT 1