

CONTEXT PROFILE











MAIN DOMAIN OF THE INNOVATION

Animal management



AGROCLIMATIC AREA

Atlantic north



CLIMATE

Moderate rainfall



SOIL TYPE

Loam



MANAGEMENT

Pasture dairy



TECHNICAL

Computer-based



FINANCE/INVESTMENT

Low



MARKET

Local-rural



SOCIAL

Full-time farmer





Case Study: IE_06	Agroclimatic Zone								
Item (Key Innovation Elements)	Alpine	Atlantic Central	Atlantic North	Atlantic South	Boreal	Continental North	Continental South	Mediterranean North	Mediterranean South
Rotational grazing, strip grazing; 12-hour strip wire between milkings to allocate grass to cows and maintain a post-grazing sward height of 3.5cm, ensuring a clean base in the sward in winter.	++	+++	+++	+++	++	++	++	++	++
Spring calving	++	+++	+++	+++	++	++	++	+++	+++
Lengthening the grazing season by extending the rotation length from August, allowing cows to graze for more days and improving animal performance.	++	+++	+++	+++	++	++	++	+++	+++













Implementation Gaps

- Using strip wires demand labour, which may not be feasible in more large-scale extensive systems.
- In Northern areas it is not possible to extend the grazing season.

Research Gaps

• There are strong research gaps in what concerns to herd and pasture management under different circumstances (composition of the pasture, climate, soils, animals,...). Decisions are often made based on empirical data and observations, and informal knowledge exchange among farmers.

Suggestions to Adapt

- The more you move South the greater it is possible to extend the growing season.
- Decrease the size of the parcels to allow for a better management of the herd and the pasture.



COST-BENEFIT ANALYSIS

INVESTMENT COSTS

Total initial investment costs at start up:	low	
Initial authorisation costs (e.g. sanitary, veterinary, etc.)	not applicable/not known	
Initial advisory costs	low	
Initial buildings and machineries	not applicable/not known	
Initial certification costs	not applicable/not known	
Initial working capital (personal qualification, marketing and promotion, etc.)	low	

ON-GOING COSTS

On-going advisory costs	not applicable/not known
On-going certification costs	not applicable/not known
On-going buildings and machinery costs	not applicable/not known
On-going working capital	not applicable/not known

BENEFITS RELATIVE TO ORIGINAL SYSTEM

Economic

Reduction in energy consumption (electricity; fuel consumption)	mid
Reduction in input use (fertilizers; pesticides; feed) etc.	mid
Payback period	high
Product value added	not applicable/not known
Additional farm income through agroecological/agri-environmental payment schemes	not applicable/not known

Environmental

Animal feed self-sufficiency increase	mid
Biodiversity increase	mid
Improved nitrogen cycling	mid
Soil regeneration	mid
Animal health and welfare improvement	mid

Social

Workload reduction	not applicable/not known
Engagement of young generation	not applicable/not known



Literature

English

- M.K. Mullenix, F.M. Rouquette (2018) Review: Cool-season annual grasses or grass-clover management options for extending the fall-winter-early spring grazing season for beef cattle11Presented at the Forage Systems to Extend the Grazing Season in the Southeastern US Symposium at the annual meeting of the American Society of Animal Science Southern Section in Franklin, Tennessee, in February 2017., The Professional Animal Scientist, Volume 34, Issue 3, 231-239, https://doi.org/10.15232/pas.2017-01714.
- Laidlaw, and Mayne. "Setting management limits for the production and utilization of herbage for out-of-season grazing." Grass and Forage Science 55.1 (2000): 14-25.
- Cahill, L., Patton, D., Reilly, B., Pierce, K. M., & Horan, B. (2023). Grazing season length and stocking rate affect milk production and supplementary feed requirements of spring-calving dairy cows on marginal soils. Journal of Dairy Science, 106(2), 1051-1064.
- Fetzel, T., Havlik, P., Herrero, M., & Erb, K. H. (2017). Seasonality constraints to livestock grazing intensity. Global Change Biology, 23(4), 1636-1647.
- Binnie, R. C., D. J. Kilpatrick, and D. M. B. Chestnutt. "Effect of altering the length of the regrowth interval in early, mid and late season on the productivity of grass swards." The Journal of Agricultural Science 128, no. 3 (1997): 303-309.
- Laidlaw, A. S., & Frame, J. (2013). Improved grassland management. Crowood.
- Phelan, P., Morgan, E., Rose, H., & O'Kiely, P. (2014). Grazing season length on dairy, beef and sheep farms in Europe. The Future of European Grasslands, 177.

