# CONTEXT PROFILE





## FARMER

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## **INNOVATION** Improvement of the grasslands through liming and by clearing bush vegetation



MAIN DOMAIN OF THE INNOVATION Improvement of plant protection



**AGROCLIMATIC AREA** Mediterranean south



**CLIMATE** Moderate rainfall



**SOIL TYPE** Loam



MANAGEMENT Ley farming



**TECHNICAL** 



















## **CONTEXT PROFILE** PORTUGAL

Case Study: PT_05	Agroclimatic Zone								
Item (Key Innovation Elements)	Alpine	Atlantic Central	Atlantic North	Atlantic South	Boreal	Continental North	Continental South	Mediterranean North	Mediterranean South
Liming – dolomite lime	++	++	++	++	+	++	++	+++	+++
Applying new organic fertiliser	+++	+++	+++	+++	+	+++	+++	+++	+++
Introducing legumes	+++	+++	+++	+++	+	+++	+++	+++	+++
Organic	+++	+++	+++	+++	+	+++	+++	+++	+++
Forestry management	++	++	++	++	+	++	++	+++	+++
Irrigation	++	++	++	++	+	++	++	++	++

+++ Strong transferability ++ Slightly limited transferability ++ Very limited transferability

Generic information/not relevant



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## **Implementation Gaps**

- Is Irrigation Necessary for Pasture Growth?
- Depends on regional climate: In temperate regions, well-managed grasslands may not require irrigation, while in arid and Mediterranean areas, supplemental irrigation could be needed to ensure consistent pasture growth.
- Soil type matters: Sandy soils drain quickly and may require irrigation, whereas clay soils retain more moisture.
- Alternative water management: Practices like rotational grazing, cover cropping, and improving soil organic matter can enhance water retention, reducing the need for irrigation.
- Animal Welfare as a Social Advantage -Access to natural grazing: Allows for species-specific behaviors, reducing stress.
- Novel Organic Fertilizer Composition & Cost
- Clear Legume and Grass Seed Mix Composition;
- What is the increase in grassland productivity
- What is the increase in animal production

## **Research Gaps**

- Evidence of improved animal welfare
- Information about the organic fertiliserinfluence on herbage production and quality and animal performance. Also soil characteristics. How much lime? When is it applied?
- Best grass seed mix

- Demonstration



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## Suggestions to Adapt

• Adapt the grassland seed mix to local particularities & needs

• Decide if irrigation is needed;

## **COST-BENEFIT ANALYSIS**

## **INVESTMENT COSTS**

Total initial investment costs at start up:

- Initial authorisation costs (e.g. sanitary, veterinary, etc.)
- Initial advisory costs
- Initial buildings and machineries
- Initial certification costs
- Initial working capital (personal qualification, marketing and promotion, etc.)

## **ON-GOING COSTS**

On-going advisory costs
On-going certification costs
On-going buildings and machinery costs
On-going working capital

## **BENEFITS RELATIVE TO ORIGINAL SYSTEM**

#### • Economic

Reduction in energy consumption (electricity; fuel consumption)

Reduction in input use (fertilizers; pesticides; feed) etc.

Payback period

Product value added

Additional farm income through agroecological/agri-environmental payment schemes

• Environmental

Animal feed self-sufficiency increase

Biodiversity increase

Improved nitrogen cycling

Soil regeneration

Animal health and welfare improvement

• Social

Workload reduction

Engagement of young generation



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## Literature

## English

- <u>https://doi.org/10.3390/agronomy11030514</u>
- <u>https://www.mdpi.com/2071-1050/12/9/3758</u>
- <u>https://doi.org/10.3920/9789086865680\_021</u>



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