# CONTEXT PROFILE





FARMER

Pompeu Pais Dias – Sociedade Agrícola Mendes Jorge



**INNOVATION** Livestock decrease to improve the Montado's sustainability



MAIN DOMAIN OF THE INNOVATION Animal management



**AGROCLIMATIC AREA** Atlantic south



**CLIMATE** Moderate rainfall



**SOIL TYPE** Loam



MANAGEMENT Pasture beef



**TECHNICAL** 











**FINANCE/INVESTMENT** Low

MARKET Local-rural

SOCIAL Part-time farmer



## **CONTEXT PROFILE** PORTUGAL

Case Study: PT_09		Agroclimatic Zone					
Item (Key Innovation Elements)	Alpine	Atlantic Central	Atlantic North	Atlantic South	Boreal	Continental North	Contin Sout
Intergenerational (three generations) cooperation	++	Х	++	++	++	++	+-
Combination of beef cattle (250 animals) and Lusitano horses (25) for dressage	+	Х	+	+	+	+	+
Reducing stocking rates by extensive grazing in order to promote sustainable development of the agrosilvopastoral complex	++	++	+++	+++	+	+++	++



Generic information/not relevant



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#### **Implementation Gaps**

- Lack of intergenerational cooperation (here, three generations working in family farm as part-time farmers)
- Insufficient farm area (the system is implemented on a large farm area of 800 ha: 600 ha arable land + 200 ha permanent crops)

#### **Research Gaps**

• Link between growth of younger holm oaks and oaks and the sustainable development of the agrosilvopastoral complex

- for the local climate
- horse breeds
- bridge feed gaps



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### **Suggestions to Adapt**

• Use local genotypes of trees mores suitable

• ombination of beef cattle with other animal species (not necessary horses) or use local

• Plant/use trees and hedgerows as forage source under drought as a strategy to

• Use other forage sources suitable adapted to (semi-)arid mixed crop-livestock systems (e.g. forage legumes, lablab)

## **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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low
low
low
low
low
not applicable/not known

low	
not applicable/not known	
not applicable/not known	
not applicable/not known	

mid
mid
high
none or low
none or low

mid
none or low
mid
mid
high

high
none or low

# Literature

## English

#### Forage hedgerows within an alpine contexts:

• <u>https://www.agroscope.admin.ch/agroscope/en/home/topics/plant-production/forage-grassland-grazing-systems/anpassung-trockenperioden/agroforstsysteme-</u> futterproduktion.htm

#### Forage legumes to bridge drought-induced feed gaps in semi-arid areas:

- Bell LW, Moore AD, Thomas DT. Integrating diverse forage sources reduces feed gaps on mixed crop-livestock farms. Animal. 2018 Sep;12(9):1967-1980. doi: https://doi.org/10.1017/s1751731117003196
- Katrien Descheemaeker, Rick Llewellyn, Andrew Moore, and Anthony Whitbread "Summer-growing perennial grasses are a potential new feed source in the low rainfall environment of southern Australia," Crop and Pasture Science 65(10), 1033-1043, (7 October 2014 (https://doi.org/10.1071/CP13444)



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