



ARIMNet2 Young Researchers Seminar

“How to better involve end-users throughout the research process to foster innovation-driven research for a sustainable Mediterranean agriculture at the farm and local scales.”

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Productive alternatives to sheep breeding in Montado - technological intensification of production systems

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CONTEXT & CHALLENGES



Alentejo reality - Montado

- 1.15 million ha of permanent pasture
 - 609.261ha (53%) - degraded and low productive
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- 1.163.000 registered animals
 - Less than 40% of ewe on manting are effectively productive



Reasons of this low productivity

- I. Soil limitations (incidence of toxicities and low fertility);
- II. Grassland species with short cycles, small biomass production with early loss of food value;
- III. Weak and/or inadequate use of production and management factors;
- IV. Poor productive potential of species/breeds or mismatch between the present breeds and handling;
- V. Inappropriate tolerance of breeds to geophysical and nosological environment.

OBJECTIVE & HYPOTHESES

Objectives

- a. To study the productivity of the systems (plant and animal component), measuring individual performance and relevant physiological variables to better understand the results, evaluating the bioeconomic efficiency;
- b. To study in detail the adaptive responses of individuals to justify the best and worst performers in the various stages of the production cycle and in the different systems.

Conceptual framework – Animal component

It is intended to study three alternative production systems:

- I. a traditional production system with a time of annual mating based on Merino Branco;
- II. a 3 parturitions in 2 years system based on Merino Branco;
- III. a 3 parturitons in 2 years system based on exotic breed with the maternal characteristics of INRA 401.



METHODOLOGY

Phase 1

- Study of adaptive behavior due to the grazing system (breed, pasture nutritive value,...)
- Reproductive efficiency (fertility and prolificacy)
- Maternal behavior
- Evaluation of parasitic loads
- Monitoring of animal welfare (salivary cortisol levels and behavior)

Phase 2

- Study the individual characteristics (molecular, genetic, physiological and endocrine)



EXPECTED RESULTS / IMPACT (INNOVATION)

- Are there any differences in the 3 production systems?!



NO

~~Innovation~~



YES

Innovative production systems for Med/Montado conditions based on more efficient use of resources (vegetal and animal).

PROPOSED PARTNERSHIP

- At this moment we don't have any partnership...

Is anyone interested? 😊

- INRA – expertise on the breed INRA 401





Thank you for your attention!

Obrigada pela sua atenção!