

**COUNTRY**

Portugal

PROJECT PROMOTER

National Institute of Agricultural and Veterinary Research (INIAV)

FUNDING

ERDF funds, EUR 2 703 070
National funds, EUR 47 701

DURATION

2016 – 2019

CONTRIBUTION TO

- increasing efficiency of biomass resource use
- creating value through improved production methods or processing technology
- creating value through increased cooperation among value chain actors

KEYWORDS

Added value, animal husbandry, biomass, ecosystem services

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VegMedCabras - Mediterranean Shrubs: natural anthelmintics in the diet selected by grazing goats

The initiative

This initiative was set up in order to study the vegetation (shrubs) selected by goats while grazing and investigate its nutritional value and natural anthelmintic potential. This work will improve the efficiency of goat grazing production systems, ensure the sustainability of goat farms and contribute to reducing forest fires through natural shrub management systems.



RESULTS

- ✓ This initiative will provide valuable information about the ecosystem services provided by grazing goats; such as the control of shrub vegetation, which provides a natural and sustainable alternative to the mechanical means of forest fire prevention that are currently in use.
- ✓ The initiative will also provide information about the nutraceutical diets selected by goats. This knowledge will help to improve the sustainability of goat production systems by adequately fulfilling both nutritive and health requirements according to the goats' physiology.
- ✓ 10 individuals directly employed in/by the initiative.



Objective

The objective of this project is to provide insight into the nutraceutical value (nutritive and anthelmintic) of Mediterranean shrubs. This knowledge will support the development of sustainable goat management practices by ensuring that their feed responds to all of the production requirements.

In addition, by taking advantage of goats' browsing capacity and by knowing more about their feeding preferences, it will be possible to substantially improve shrubland management by controlling combustible biomass through the natural ecosystem.

Activities

The research institution INIAV and the Évora University evaluated the nutraceutical value (nutritional value and anthelmintic potential) of the available shrub species and of the particular diets selected by goats during grazing/browsing.

INIAV will also study and classify the Mediterranean shrubs in the area of interest; considering the available biomass and its growth over time, as well as its regrowth after been grazed by goats.

Specialists from INIAV and the Évora University will also document how the goats select their feed and the quantity and quality of the milk they produce - in relation to their physiology when they have been affected by parasites - and monitor their metabolic response.

Knowledge exchange will be facilitated by this project by involving students in the work and enabling them to use it for their dissertations.

Environmental sustainability

The project will have a positive environmental impact by providing insights into the way goats select shrubs for feed, and the biomass they consume. This will provide a definition of the type of ecosystem service the animals can provide and its contribution to shrubland management.

The environmental impact of the project will be measured through both the documented observation of the goats' browsing behaviour and through the analysis of the shrubs they select for consumption.

Lessons learnt

Relevant information and expertise on the topics covered by this initiative are available from several Mediterranean countries. However, research gaps remain, and more detailed local information is required in order to gain an understanding of the full variety of Mediterranean shrubland species.

It is important for studies to use local animal breeds in their work so that the findings can be applied to existing goat production systems.

It is hard to obtain the necessary funding for this type of initiative.

Browsing goat production systems are limited. Adequate remuneration would ensure sustainability and thus attract more producers to this activity.

This is primarily an experimental initiative involving research institutions. However, the results are transmitted to stakeholders and the wider community through workshops and demonstration activities, as well as through the publication of scientific and technical papers.