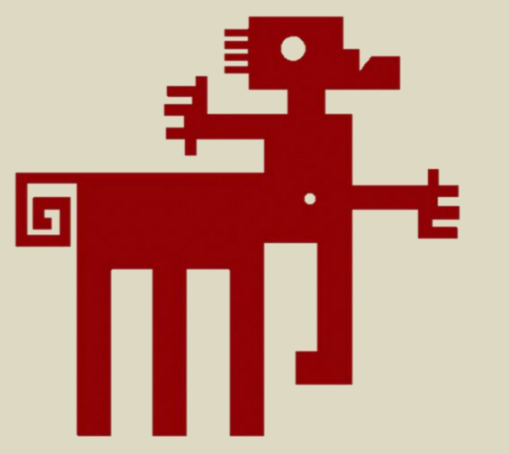




COMPARATIVE STUDY BETWEEN CONVENTIONAL AND ORGANIC OVINE RANCHING IN PALLARS



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INTRODUCTION

Ovine ranching is an ancestral activity in our country. When the first sheep arrived in the Iberian Peninsula they found a pleasant climate and ideal food resources. Consequently, the ovine ranching settled down and the herd grew. It turned into an economic power and many privileges were given to the shepherds.

In the early fifties, the mechanization of the agriculture and the intensification of the cattle industry left the ovine ranching apart.

OBJECTIVES

The aim of this study is to collect information from different production-related items of the ovine ranching in the catalan regions of Pallars Jussà and Pallars Sobirà.

Specifically, the objective of the study was to test whether there are any significant differences between the two productive models (conventional and organic) in this specific area, based on the obtained information from surveys of local shepherds.

RESULTS

Conventional null (H_0) and alternative (H_1) hypothesis were defined for the study. A significance level of $\alpha=0,05$ was used.

In the statistical study we performed Chi-squared test and comparison of proportions. The results can be considered as a significant value and the null hypothesis can be rejected. The results are:

Table 1. Results of the statistical analysis (*Annex 1*)

RESULTS	Replacement ewe lambs		Lambs/ewe/year		Sacrifice weight		
	Chi-squared test	Comparison of proportions	Chi squared test	Comparison of averages	Average	Quasi-variance	Comparison of proportions
Conventional	$p = 0,00027$	$p = 0,00275$	$p = 10^{-40}$	$p = 0$	25,43479 kg	0,40926 kg ²	$p = 0,0794$
Organic	$p = 0,00007$		$p = 10^{-35}$		25,40670 kg	1,43067 kg ²	

RESULTS	Time of rearing		
	Average	Quasi-variance	Comparison of proportions
Conventional	2,63978 m	0,16614 m ²	$p = \text{almost } 0$
Organic	2,99943 m	0,14696 m ²	

CONCLUSIONS

- Statistical significant differences between conventional and organic ovine production in the Pallars do exist.
- Replacement ewe lambs percentage is higher in organic farms.
- Organic lambs need more time to reach the average sacrifice weight.
- The wildlife conflict affects both models of production.
- The future and the continuity of the ovine ranching are conditioned by a change on the price of the lamb, keeping the sheeps semi-housed, transforming the farms into the organic model and keeping the grants.

Figure 1. Map of the region with the farms pointed in orange (conventional) and green (organic)

