

# WELFARE-FRIENDLY MANAGEMENT PRACTICES ON FARM AND SLAUGHTER WEIGHT EFFECTS ON MEAT QUALITY OF NEGRA SERRANA KIDS

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## 1. INTRODUCTION

In Spain there are 2.5 million heads, about 40% are in the South. The goat is an essential element of certain landscapes and ecosystems of our country and large areas of Mediterranean Europe, contributing to their maintenance. In fact a large fraction of the community effects is located in disadvantaged and mountain areas. Consumers demand high quality products, so high environmental or animal welfare standards are well-evaluated parameters. The **objective** of this work was to assess the quality of the kid meat obtained under the welfare-friendly practices.

## 2. METHODS

- 2 extensive farms of Negra Serrana-Castiza goat breed were selected in base of an evaluation system with 120 items. One farm with a high welfare-friendly practices and the second one with a low welfare-friendly practices.
- All the kids were reared with their dams until slaughter
- The meat of 60 male kids were controlled. Colour, water holding capacity and pH in *Longissimus lumborum* at 3 days post-slaughter were measured.
- The effect of slaughter weight (10,05 kg for light kids versus 16,45 kg for heavy kids) and the welfare-friendly management practices on farm (high and low) were evaluated.
- By multivariate GLM and stepwise discriminant analysis

## 3. RESULTS

**Table 1.** Meat quality of kids from Negra Serrana goat breed

		L*	a*	b*	pH	WHC
High welfare-friendly practices on farm	Light kids	49.37	4.88	12.15	5.56	19.11
	Heavy kids	47.23	5.65	11.75	5.64	19.44
Low welfare-friendly practices on farm	Light kids	51.13	3.96	12.12	5.68	14.72
	Heavy kids	47.91	4.75	11.33	5.66	16.10

**Table 2.** Significance of the factors effect on meat colour, pH and Water Holding Capacity

	L*	a*	b*	pH	WHC
Welfare practices	NS	NS	NS	*	**
Weight	*	NS	NS	NS	NS
Welfare practices* Weight	NS	NS	NS	NS	NS

ns: non significative \* P<0,05 \*\* P<0,01



## 4. CONCLUSIONS

Kid meat from suckling animals with heavy weight were obviously darker. The differences on the meat quality were not so important because the management practices between higher and lower welfare-friendly ones were not so great in extensive goat farms. But higher pH in low welfare-friendly practices made less percentage expelled juice of the meat. In a discriminant analysis, L\* and WHC were able to classified the 76,7% of the kids into their four groups.