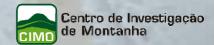


# Introduction

- Meat from heavier animals, particularly culling ewes is very depreciated and worthless.
- Meat more suitable to process as drying, curing with salts or smoking products.
- The objective was to study a strategy which gives value-added to meat from culled ewes, with a very low commercial price, and to create a new sheep meat product.











 The effects of ageing, salting and drying on physical characteristics of meat were assessed in subscapularis and semimembranosus ms.:

- color; and
- water activity (a<sub>w</sub>)

# Statistical analysis

- The experimental design was completely random.
- Parameters such as pH, water-holding capacity, texture, pigments, water activity and color, in fresh meat, during salting and air-drying, were analyzed. The effect of ageing was studied.
- Fresh meat pH, color, and aw as well as pigment determination, water-holding capacity and texture, and color and aw during salting and air-drying data were submitted to an analysis of variance, with ageing as only treatment with two levels (72 e 120 h).
- One-way ANOVA procedure from SPSS software for Windows, version 17.0, was used.

# Results and discussion

Table 1: Means  $\pm$  standard deviation of fresh meat color and physical parameters. Effect of ageing.

	Effect of ageing		
Color parameters	Ageing 1	Ageing 2	Significance
L*	35.32±0.63 <sub>a</sub>	31.07±0.43 <sub>b</sub> SR6	***
a*	17.00±055 <sub>a</sub>	$14.67 \pm 0.30_{\rm h}^{\rm o}$	***
b*	$10.50\pm0.27_a$	$6.55\pm0.31_{\rm h}$	***
H*	$31.82\pm0.55_{a}$	$23.82 \pm 0.67_{\rm h}$	***
C*	$180.52\pm1.05_{a}$	$98.05\pm6.67_{b}^{\circ}$	***
Physical parameters			
pН	$5.56 \pm 0.28$	$5.69 \pm 0.05$	NS
$a_{ m w}$	$0.90\pm0.01$	$0.96 \pm 0.00$	NS
WHC	26.80±1.36	32.56±1.91	NS
DO*	$4.77 \pm 0.39$	$4.89 \pm 0.45$	NS
SF (kgf/cm <sup>2</sup> )	$8.97 \pm 0.28_{a}$	$6.20\pm0.24_{b}$	***

Means in the same column with different superscripts differ significantly: \* P<0.05; \*\* P<0.01; \*\*\* P<0.001 NS – not significant

SR6

Eu reduziria a informação dos quadros, tirando os desvios padrão e os a's e b's. na minha opinião não terão muita importancia para a apresentação. Sandra Rodrigues; 19/07/2010

# Results and discussion

Table 2:. Means  $\pm$  standard deviation of meat color parameters. Effects of salting and air-drying

Parameters	Effect of salting		Ci i Ci
	Ageing 1	Ageing 2	- Significance
L*	34.22	33.394 <sub>b</sub>	***
a*	9.76	9.79 ຶ	NS
b*	7.51	6.54	***
$H^*$	42.41	38.62	***
$C^*$	81.41	70.90	***
	Effect of a	air-drying	
L*	29.32	30.11	***
a*	4.68	3.91	***
b*	6.43	5.50	***
H*	52.99	54.28	*
C*	32.63	22.77	***

# Results and discussion

Table 3: Means  $\pm$  standard deviation of activity of water ( $a_w$ ). Effects of salting and air-drying, according ageing

$a_w$	Ageing 1	Ageing 2	Significance
Fresh meat	0.901	0.96	NS
Salting	0.86	0.87	***
Air-drying	0.76	0.79	***

Means in the same column with different superscripts differ significantly: \* P<0.05; \*\* P<0.01; \*\*\* P<0.001; NS – not significant.

# Conclusions

- Ageing, salting and air-drying affect the color parameters making the meat darker and reducing the water activity which was extremely important for final product preservation.
- The ageing process is important in terms of meat texture, since it makes the meat more tender as result of a shear force reduction.

#### Diapositiva 11

SR4

is Sandra Rodrigues; 19/07/2010

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