

## EFFECT OF CASTRATION IN MEAT TENDERNESS OF SANTA INÊS LAMBS

### EFEITO DA CASTRAÇÃO NA MACIEZ DA CARNE DE CORDEIROS SANTA INÊS

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The main factors that contribute to the quality of the meat are texture, flavor, color, appearance and odor. The texture varies depending on the size of the fiber bundles, which is not only determined by the number of fibers, but also by the diameter. The diameter of sheep meat muscle fibers is lower than that of swine and bovines, which tends to increase subtly, and according to the age, this gives a characteristic of greater resistance to the meat. The differences in meat tenderness can also vary depending on the genetic and biochemical composition, especially related to fat ratio, or types of fibers in the muscle. The texture can be determined by sensory and instrumental methods, especially in Warner-Bratzler, which 36% of the variance of the texture can be perceived by consumers. This is an important quality parameter to be considered before marketing these meats. The aim of this study was to evaluate the shear force meat of castrated Santa Inês-bred lambs. Thirty two Santa Inês-bred lambs, with a mean age of 9 months, were divided into 2 groups: C (castrated) and NC (non-castrated). The animals of Group C were castrated after weaning, by the surgical method of removing the testicles. At 45 kg live weight, the animals were slaughtered, and separated into loin cuts (*Longissimus dorsi*). The topside, formed by 9 muscles on the back side, was cut for analysis. Twenty samples of each cut were removed from each animal and then measured using the Texture Analyzer coupled with the Warner-Bratzler device, to determine the shear strength of the sample. The experimental design was completely randomized, and means were compared by Tukey test at 5% probability using the GLM procedure (SAS Inst., Inc., Cary, NC). The results for shear force (Table 1), for the loin and topside cuts did not present significant differences ( $P>0.05$ ). There were no differences in the analysis of shear force probably due to the fact that the animals has been slaughtered at similar ages, when the male hormones did not exert influence on meat tenderness. Therefore, in conclusion, castration does not influence the characteristics of tenderness of loin and topside cuts of Santa Inês-bred lambs.

Table 1. Shear force of cuts of loin and topside of Santa Inês lambs castrated (C) and non-castrated (NC)

Cuts	Shear force (kg) Group		P-value
	C	NC	
Loin	4.249±0.20	3.793±0.20	0.1288
Topside	4.751±0.18	4.820±0.19	0.7983

Keywords: meat quality, orchiectomy, shear force.

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