EFFECT OF VITAMIN AND SUPPLEMENTATION ON COLOR OF LAMB MEAT

EFEITO DA SUPLEMENTAÇÃO DE VITAMINA E SOBRE A COR DA CARNE DE CORDEIROS

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Color is the first factor that consumers consider when it comes to meat quality, linking it to freshness. The most common function of vitamin E (tocopherol α-), is its ability to act as an antioxidant in biological systems. The free radicals are neutralized by α-tocopherol before lipid oxidation is propagated between the cellular and subcellular membranes of highly unsaturated fatty acids. The antioxidants in meat have the function to delay the onset of oxidation phenomena, retaining the sensory characteristics. They are added to the foods to preserve their color characteristics, avoiding the appearance of anomalous odors. The aim of this study was to evaluate the color of the meat of Santa Inês-bred lambs, supplemented with Vitamin E. Thirty two Santa Inês-bred lambs were divided into 2 groups: S (supplementation with Vitamin E) and NS (not supplemented with Vitamin E). The animals were fed an isoproteic diet formulated to meet the requirement of 250-300 g/day. The S group was fed a diet containing 350 mg/kg ppm of Vitamin E per day, added to the concentrate. After the slaughtering, the muscle *Longissimus dorsi* was separated for the evaluation of the color with the aid of a colorimeter (Minolta) in the CIELAB system, which assessed the parameters: *L* (brightness), *a* (red content) and *b* (level of yellow). The values *L*, *a*, and *b* were obtained in three separate surface points in the muscle to obtain the average between the values. 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 meat color (Table 1) was not different between treatments (P<0.05). This lack of difference between treatments may have occurred, because the measurements were realized with fresh meat, and there was not enough time for oxidative processes to occur. Thus, the supplementation with Vitamin E did not affect the meat color of Santa Inês-bred lambs.

Table 1. Meat color characteristics of Santa Inês lambs supplemented (S) or not supplemented (NS) with vitamin E

Measurements	Vitamin E		P-value
	S	NS	
L*	31.4±0.82	32.9±0.79	0.1972
a*	15.6±0.42	14.6±0.40	0.1001
b*	6.24±1.38	5.93±1.33	0.8745

Keywords: meat quality, sheep, α- tocopherol.

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