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Meat quality of lambs fed diets with peanut cake

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ABSTRACT: Replacement of soybean meal by peanut cake was evaluated on the meat quality of 45 Dorper × Santa Inês crossbred lambs. Animals were distributed in a completely randomized design, with five treatments and nine repetitions, and fed Tifton-85 hay and a concentrate mixed with 0.0, 25.0, 50.0, 75.0 or 100.0% peanut cake based on the dry mass of the complete diet. The *Longissimus lumborum* muscle was used to determine the proximate composition, physical-chemical characteristics and fatty acid profile. Significant differences *(P<0.05)* were found for the crude protein and ether extract levels, with average values of 23.38 and 2.15% in the sheep meat, respectively. The physical-chemical characteristics of the loin were not affected *(P>0.05)* by the diets. The fatty acid profile was affected by peanut cake supplementation for myristic, myristoleic, palmitoleic, linolenic and arachidonic fatty acids. Peanut cake can be added in the diet of lambs no effect on physical-chemical characteristics. However, the total replacement of the soybean meal altered the proximate composition and fatty acid profile of the meat.

Keywords: byproduct, color, fatty acids, proximate composition, texture

1. INTRODUCTION

Alternative feed sources for sheep in finishing that may be used to promote decreased production costs, improved profitability of producers and sustainable animal production systems are in demand, mainly because of the high feed prices that can account for up to 70% of production costs in lamb production (Moreno et al., 2010; Paim et al., 2011).Thus, according to Pereira et al. (2016), the search for alternative food sources for nutritional