

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

LIPID PROFILE OF SHEEP MEAT FEEDED WITH MANIPUEIRA IN REPLACEMENT TO MAIZE

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Nutritionists' recommendations highlight polyunsaturated fatty acids, especially those of the ω -6 and ω -3 classes, as being more beneficial to human health. In this sense, the nutritional management of animals has been strategically worked in order to balance the presence of fatty acids in the meat. The objective of this study was to evaluate the effect of maize dietary substitution by manipueira (0, 25, 50, 75 and 100%) on the lipid profile of the meat of sheep finished in confinement. The study was conducted at the Animal Science Department of the Federal Rural University of Pernambuco, Recife - PE. Forty Santa Inês sheep were distributed in a completely randomized design, with five treatments and eight replications, slaughtered after seventy days of confinement. The extraction and esterification of lipid fraction was carried out from an aliquot of Semimembranosus, which was injected in a gas chromatograph for identification and quantification of fatty acids. Twenty-seven different fatty acids were identified, of which twelve were saturated, nine monounsaturated and six polyunsaturated. Palmitic (C16: 0), stearic (C18: 0) and oleic (C18: 1) fatty acids corresponded to approximately 80% of the total, demonstrating a higher prevalence of these acids in the lipid profile of Santa Inês sheep meat. There was a quadratic effect for the fatty acids pentadecílico (C15: 0) and margárico (C17: 0) with maximum of 0,37 and 1,30 when the substitution was of 46,25% and 68,50%, respectively; increasing linear effect for stearic (C18: 0); and decreasing to the behenic (C22: 0). For monounsaturated fatty acids, there was a decreasing linear effect for C14: 1 and C20: 1 n9 and increasing for C18: 1 n11. For C15: 1, there was a quadratic effect with a maximum of 1.48, when 26.75% of maize was replaced by manipueira. For the polyunsaturated fatty acid C18: 29c 11t, there was a quadratic effect, with a maximum of 0.60 when the substitution was 36.66%. Polyunsaturated fatty acids made up the lipid profile of the meat in small proportions, which is justified by the processes of lipolysis and biohydrogenation that occur in the rumen level, which substantially modify the lipids supplied through the diet. Despite the variations in the concentrations of some fatty acids, there was no substitution effect on total saturated, monounsaturated or polyunsaturated fatty acids. Thus, the substitution does not compromise the nutritional quality of the lipid fraction of Santa Inês sheep meat, allowing the use of manipueira or maize.

Keywords: alternative food, fatty acids, human health, manioc, Santa Inês

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