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CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

# LIPID PROFILE AND TOCOPHEROL CONCENTRATION OF TROPICAL PASTURES

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Changes in pasture species, structure and phenological stage can promote variation on grazing lambs' diet in relation to chemical composition and antioxidant concentration. The objective of this study was to evaluate the lamb diet grazing different tropical pastures: Aruana grass (*Panicum maximum* cv. IZ-5), Pigeon pea (*Cajanus cajan*), and Mixed (half of the area with *Panicum maximum* cv. IZ-5, and half with *Cajanus cajan*), in relation to lipid profile and tocopherol concentration during summer and autumn in a subtropical area of Brazil. Lambs grazed the pastures continually during 92 days, with a pasture allowance of 12 kg DM/100 kg LW, in a randomized block design with three replications, repeated in time. Forage was sampled by grazing simulation every 21 days. Data were analyzed using SAS statistical software. The concentration of MUFA, n6, alpha-tocopherol concentration and the n6/n3 ratio were similar among pasture types (P> 0.05), with a mean of 8.94%, 13.92%, 137.22 mg $kg^{-1}$ and 0.83, respectively. The concentration of SFA, PUFA and n3 differed among pasture types (P <0.05). The pasture of Aruana grass (68.04%) provided the highest SFA concentration, Pigeon pea (51.23%) the lowest, and the Mixed pasture (59.43%) the intermediate. The greatest concentration of PUFA was found in the Pigeon pea pasture (40.15%), and the Aruana grass (22.29%) provided the lowest concentration, being the Mixed pasture (32.03%) intermediate. The n3 concentration was greater in the pastures of Pigeon pea and Mixed (average of 20.57%) than in the Aruana grass (11.50%). The Aruana grass diet presented the greatest SFA concentration. Lamb diet concentration of PUFA and n3 were greatly increased by the presence of the legume, reducing the n6:n3 ratio. The alpha-tocopherol levels of lamb diet were similar of all treatments. All pastures provided important amount of alfa-tocopherol, similar to alfafa and ryegrass, found in other studies, with a potential reflection on meat quality.

**Keywords:** Aruana grass, n6: n3, Pigeon pea, PUFA

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