

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

UNSATURATED FATTY ACIDS PROFILE IN *Longissimus* MUSCLE OF ½ BOER-SAANEN GOATS SUPPLEMENTED WITH VITAMIN E

Ana Paula Silva POSSAMAI*¹, Claudete Regina ALCALDE¹, Bruno LALA¹, Andresa Carla FEIHRMANN¹, Ana Cássia Silva POSSAMAI²

*corresponding author: anapaula_possamai@zootecnista.com.br

¹Universidade Estadual de Maringá, Maringá, Paraná, Brasil

²Universidade do Estado de Mato Grosso, Nova Mutum, Mato Grosso, Brasil

Twenty *Longissimus* muscle samples of ½ Boer-Saanen kids were used to evaluate unsaturated fatty acids profile. Animals were distributed in a completely randomized design with four treatments: control (with no vitamin E) and inclusions of 50, 150 and 450 mg dl- α -tocopheryl acetate kg⁻¹ of dry matter (DM). Kids were slaughter with 32 \pm 0.8 kg. Lipid extraction was performed on the muscle and fatty acids were determined by gas chromatography. Data were submitted to analysis of variance with polynomial regression ($P \leq 0.05$) using vitamin E levels included in the diet 0; 50; 150 and 450 mg of dl- α -tocopheryl acetate kg⁻¹ DM. No effects were observed for the total proportions of monounsaturated fatty acids (MFA). However, there was a quadratic effect for the total proportion of polyunsaturated fatty acid (PUFA), where its concentration increased to the maximum point in the inclusion of 215 mg of vitamin E, providing accumulation of 7.91 g of PUFA for every 100 g of total muscle fatty acids. There was no effect of vitamin supplementation on the concentrations of omega 3 (n3), omega 6 (n6) and n6: n3 ratio in kids' meat. No influence was observed on the deposition rates of linoleic acid (C18:2n6) and α -linolenic acid (C18:3n3) in muscle of animals. It was observed a quadratic effect for the conjugated linoleic acid (CLA), where there is an increase in its participation in the concentration of fatty acids up to the point of maximum inclusion of 234 mg of vitamin E in the diet, which allows the deposition of 0.48% of CLA in the muscle. For arachidonic acid (20:4n6), there was a quadratic effect with an increase in its amount up to a maximum of 253 mg of vitamin E inclusion in the diet, allowing the deposition of 3.53% of arachidonic acid against total fatty acids. Inclusion of vitamin E in the diet allowed improvements in the fatty acid profile of kids' meat when added between 215 and 253 mg of dl- α -tocopheryl acetate kg⁻¹ of dry matter in the diet.

Keywords: alpha-tocopheryl, lipid, meat quality, omega

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