

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

GROWTH SYSTEMS AND SLAUGHTER WEIGHT IN NUTRITIONAL AND SENSORY QUALITY OF MEAT CROSSBRED GOAT KIDS

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This study objected to evaluate the influence of milk supply and weight slaughter in nutritional and sensorial quality meat of 99 crossbred goat kids ($\frac{1}{2}$ Anglo Nubian + $\frac{1}{2}$ Alpine), of both sexes (S) being 50 whole males and 49 females, submitted to two growth systems – GS (SL - suckled up to 60 days and CL - suckled to slaughter) and weights slaughter – WS (20, 30 and 40 kg). The goats were artificially suckled buckets with 1,5 L d⁻¹ natural goat milk and from the 10th day of life, they began to receive the experimental diet (28.1% CP, 2.8% EE, 46.0% NDF, 25.5% ADF and 67.2% TDN) *ad libitum* containing 700 g kg⁻¹ of concentrate ground and 300 g kg⁻¹ of *Coast cross* hay, in natural matter. After slaughtering, in a commercial slaughterhouse, a sample of *Longissimus lumborum* muscle was collected to analyze the physical-chemical and sensory characteristics: humidity (H), crude protein (CP), etheral extract (EE), mineral matter (MM), pH, color, water retention capacity (WRC), weight loss by cooking (WLC), shear force (SF), aroma, flavor, tenderness, juiciness, chewiness and profile of fatty acids (FA): ω 3 (omega-3), ω 6 (omega-6), saturated fatty acids (SFA), monounsaturated fatty acids (MUFA), polyunsaturated fatty acids (PUFA), ω 6/ ω 3, MUFA/SFA, UFA/SFA, hypocholesterolemic/hypercholesterolemic (HH) ratios and atherogenicity (AI) and thrombogenicity (TI) index. The design was completely randomized and data analyzed in a factorial scheme 2 (S) x 2 (SG) x 3 (PA), using PROC GLM of SAS 9.4 and the means compared by the Tukey test ($P \leq 0.05$). The GS CL in relation to SL increased EE (2.12 vs 1.74%) and decreased CP (17.74 vs 18.10%) of meat. GS SL presented lower SFA (35.24 vs 38.82%), IA (0.45 vs 0.69) and TI (1.11 vs 1.34) in relation to CL. WS 20 kg presented higher H and lower MM in relation to WS 40 kg and lower CRA in relation to WS 30 kg. The WS 20 kg presented increase in PUFA and ω 3 when compared to WS 40 kg. Male goats presented superior results for CP, pH, PUFA and ω 3 in relation to females. There was no influence of GS in sensory, however WS 20 kg showed higher juiciness and chewiness relative to WS 40 kg. Thus, aiming at the quality of meat and human health, it is recommended the slaughter of goats with 20 kg of live weight, weaned at 60 days.

Keywords: fatty acids, humidity, sensory, shear force, tenderness

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