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Effect of the pasture supplementation strategy in the growing period on performance and carcass traits of crossbred cattle finished in feedlot

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The aim of this study was to evaluate performance in feedlot and carcass traits at slaughter of crossbred cattle prior raised grazing tropical grasses and receiving supplement with or without virginiamycin (VM). Steers (n = 34) and heifers (n = 31) produced from matting Nellore, ½ Nellore x ½ Angus and ½ Nellore x ½ Caracu dams with Braford, Charbray and Caracu sires were raised grazing tropical grasses (divided into eight paddocks of eight hectares each, formed by *Brachiaria brizantha* cv. Marandu) and received protein and mineral supplementation with or without VM (included in the supplements to provide an intake of 45 mg 100 kg BW^{-1}) on dry (July to October) and rainy seasons (November to June), respectively, from 9 to 20mo of age. Animals were finished feedlot for 4mo kept in individual pens allowing measuring daily dry matter intake (DMI). Weight records (BW) were taken in the beginning and in the end of the feedlot as well as every 28 days to calculate average daily gain (ADG). Feed conversion rate (FCR) and gross feed efficiency (GFE) were used as measures of feed efficiency. At slaughter, carcass dressing percentage (CD) was evaluated and following 24-hour chill, ultimate pH, ribeye area (REA) and backfat thickness (BFT) were measured. The paddocks were considered as experimental units and the variables were analyzed as randomized blocks using GLM procedure of SAS at 5% of significance. There were no differences between treatments for initial BW (364 vs. 373 kg; P = 0.65) and final BW in feedlot (505 vs. 510 kg; P = 0.76), however, cattle that had received supplements without VM during growing period showed greater ADG (1.60 vs. 1.48 kg day^{-1}; P = 0.05) and lower DMI (10.84 vs. 11.44 kg DM day^{-1}; P = 0.08 and 2.45 vs. 2.60 % BW; P = 0.01) than group that received supplements with VM. FCR (P = 0.26) and GFE (P = 0.12) were similar between the groups with general averages of 6.81 and 0.164, respectively. There were no differences for CD (P = 0.41), pH (P = 0.10) and REA (P = 0.97) among the treatments, however BFT was greater for animals that received VM (6.9 vs. 5.8 mm; P = 0.07). The use of virginiamycin in growing period led to lower average daily gain, greater dry matter intake and possibly greater backfat thickness in finishing period in feedlot.

Key words: antibiotic, average daily gain, backfat thickness, dry matter intake

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