ISSN: 2448-4385
Vol. 1 - 2016

Performance of crossbred steers surgically castrated or immunocastrated

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The aim of this study was to assess performance of crossbred steers surgically castrated or immunocastrated. Steers produced along two years from mating Nellore, ½ Nellore x ½ Angus and ½ Nellore x ½ Caracu dams with Braford, Charbray and Caracu sires were raised grazing tropical grasses until 20 months of age (n = 80; 40 per treatment) and finished feedlot for 4 months (n = 64; 32 per treatment). The selection of animals that were finished feedlot was performed in order to remove those with more discrepant weights in relation to the mean at the end of backgrounding period, keeping balanced the number of individuals of each evaluated genetic group. Animals were kept in individual pens allowing measuring of daily dry matter intake (DMI) and weight records 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 ratio (FCR) was used as a measure of feed efficiency. The immunocastration protocol was performed in three applications of vaccine Bopriva (Zoetis; 1 ml subcutaneous each application), targeting the complete castration effect, obtained in the 2nd dose (booster) according to manufacturer recommendations, at 14 months of age, when was also performed surgical castration of the other steers, so that all animals were castrated at the same age. Data were analyzed under a mixed model with sire and dam genetic group (and its iteration), castration method and backgrounding pasture as fixed effects, and sire nested in sire genetic group as random effect. There were no difference between steers surgically castrated or immunocastrated on weight measured in November during backgrounding period (270 vs. 260 kg; P = 0.70), in the beginning (445 vs. 447 kg; P = 0.85) and in the end of feedlot (567 vs. 579 kg; P = 0.42). Animals of both treatments were similar for ADG (1.31 vs. 1.40 kg day^{-1}; P = 0.21), DMI (11.6 vs. 11.5 kg DM day^{-1}; P = 0.65) and FCR (8.72 vs. 8.15; P = 0.18) in feedlot. The different castration methods did not influence in performance of crossbred steers during the backgrounding phase under grazing and finishing feedlot.

Key Words: body weight, *Bos taurus*, composite breed, temporary castration

Acknowledgements: The authors thanks CNPq (Grant n° 476203/2013-9) and Fundect (Grants n° 123/2014 and n° 037/2015) for financial support of this project.