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Our objective was to determine the effect of immunocastration on performance of finishing cattle of 2 genetic groups (GG) and 3 sex conditions (SC). Thirty Nellore (NE) and 30 Nellore × Angus (NA) with average of 450 kg BW and 20 mo of age were evaluated during two periods: pre-feedlot and feedlot. The first period was defined from 130 to 90 d prior to harvest, while the second period was the last 90 d prior harvest. In the pre-feedlot period 10 NE and 10 NA were immunocastrated (IM) by vaccinating twice with Bopriva (anti-GnRH vaccine; Pfizer Animal Health) at 28 d and 1 d prior to transfer to feedlot. Surgical castration (CA) treatment was imposed on 10 animals from each GG, which occurred at 28 d before transferring to feedlot. Ten animals from each GG were kept intact (NC). During the pre-feedlot period the animals were raised on pasture and supplemented at 0.25% of BW, while during the feedlot period, the animals were fed ad libitum a high-grain diet formulated to contain 85% concentrate. In the feedlot the animals were finished in individual pens. Statistical analyses were performed according to a 2 × 3 factorial scheme (2 GG × 3 SC) in a completely randomized design. Data were analyzed using the MIXED procedure of SAS with initial weight as a covariate, and the means were compared by Student's t-test at 5% probability. As expected, NA animals had greater BW and ADG than NE ($P < 0.05$), but similar DMI and G:F ($P > 0.05$). Although IM and CA animals showed similar results for ADG, DMI and G:F ($P > 0.05$), IM had greater BW ($P < 0.05$). NC bulls had greater BW, ADG and G:F than the other SC ($P < 0.05$), but equivalent DMI ($P > 0.05$). Among IM treatments NA had greater BW, ADG and G:F than NE ($P < 0.05$). In this study NA animals and NC bulls were more efficient on high-grain diets due to greater BW and ADG. Additionally IM-NA animals had better performance than IM-NE with greater BW, ADG and G:F.

Key Words: sexual conditions, *Bos indicus*, beef cattle

T178 Correlations of visual scores and ultrasound carcass traits with economically relevant traits in Nellore cattle. R. C. Gomes*[1], P. H. Cancian[2], F. Manicardi[2], A. C. Ianni[2], M. N. Bonin[2], P. R. Leme[2], and S. L. Silva[2], *[1]Embrapa Beef Cattle, Campo Grande, MS, Brazil, [2]Faculdade de Zootecnia e Engenharia de Alimentos, Universidade de Sao Paulo, Pirassununga, SP, Brazil.*

Visual scores (VS) and carcass ultrasound have been used for genetic selection purposes in the Brazilian Nellore herd. However, the impacts on economically relevant traits, such as feed efficiency and the yield of commercial meat cuts, still lack investigation. The aim was to evaluate the correlations of VS and carcass traits evaluated by ultrasound (US), with feed efficiency (FE), hot carcass weight (HCW), dressing percentage (DP) and retail product yield (RPY). Fourty-two bulls and 44 steers were evaluated for both VS and US, in the postweaning phase (15 mo of age) and in the beginning of the finishing phase (21 mo of age). Cattle were ultrasound scanned for measuring backfat thickness (UBFT), rump fat thickness (URFT) and ribeye area (UREA). Visual scores of conformation (C), precocity (P) and muscling (M) were attributed individually. Gain-to-feed ratio (G:F) and residual feed intake (RFI) were measured in feedlot. HCW, DP and RPY were determined at harvest. Pearson correlation analyses were carried out. Bulls had greater HCW (321 vs. 292 kg; $P < 0.0001$) and RPY (74.5 vs. 71.8%; $P < 0.0001$) and lower finishing UBFT (0.58 vs. 1.60 mm, $P < 0.0001$) and URFT (1.96 vs. 3.64 mm; $P < 0.0001$) than steers. C and P did not differ across sex types ($P > 0.05$) in both phases, but bulls had greater M scores in the finishing phase (4.49 vs. 3.42, $P < 0.01$). Feedlot RFI and G:F were poorly correlated with postweaning VS and US in both sex types ($P > 0.05$). G:F was negatively correlated with finishing C ($r = -0.39$; $P < 0.05$), P ($r = -0.50$; $P < 0.01$) and M ($r = -0.50$; $P < 0.01$) in steers. DP was negatively correlated with postweaning P ($r = -0.31$; $P < 0.05$), M ($r = -0.32$; $P < 0.05$) and UREA ($r = -0.51$; $P < 0.01$) in steers. Finishing URFT was negatively correlated with RPY in bulls ($r = -0.41$; $P < 0.01$). Greater subcutaneous fat thickness in the beginning of the finishing phase may indicate cattle with lower retail product yield. The associations of visual scores and ultrasound carcass traits with feed efficiency and retail product yield are affected by age at evaluation and by castration, but are generally small.

Key Words: body composition, edible portion, feed conversion