

THEME 9 | RUMINANT NUTRITION AND PRODUCTION

**Evaluation of meat quality and yield carcass in young taurine steers
reared on pasture or supplemented**

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Supplementation on pasture is an alternative to better balance the diet and improve beef quality. The objective study was to evaluate meat quality and yield carcass in young steers raised exclusive on pasture or supplemented with corn grain (0.8% of the liveweight) in the last 60 days before slaughter (\pm 450 kg weight, around \pm 15 months). The experiment was realized with 22 Aberdeen Angus steers and after the slaughtering the following measures were done: hot carcass weight, *Longissimus dorsi* muscle area, width, depth, fat thickness and meat tenderness. To realize this measures the muscle was sectioned between the 12th and 13th ribs (2.5 cm of thickness). The fat thickness, width and depth were measured using a graduated ruler, and the *Longissimus dorsi* muscle area was measured using an image analyses software. The sample of each animal were cooked in electric grill until reach the inside temperature of 72°C measured using a metal tip thermometer, and 6 cylindrical subsamples were used to determine the shear force using a texturometer (TA.XT.Plus) with specific probe (warner-bratzler). The yield carcass was calculated with the hot carcass weight and the liveweight. The data collected were submitted to analysis of variance with a completely randomized design and the means were compared by Fisher-Snedecor test with 5% of significance, using SAS 9.2 software. Supplemented animals had higher yield carcass (58.74%), compared with grass-fed (54,37%, $P = 0.0364$), higher fat thickness 5.65 mm versus 4,02mm ($P = 0,0001$) and better tenderness 4.09 kgf (m²)⁻¹ versus 6.86 kgf (m²)⁻¹ ($P = 0.0001$). However, grass-fed animals had higher *Longissimus dorsi* area ($P = 0.0001$), and higher *Longissimus dorsi* width ($P = 0.0001$) with means of 71.19 cm² versus 55,92 cm² and 14.8 cm versus 12,69 cm, respectively. There was no significant difference between the treatments just for *Longissimus dorsi* depth. The corn grain supplementation with 0.8% of the liveweight during 60 days presented promising results about meat tenderness, fat thickness in *Longissimus dorsi* and yield carcass. Studies will be realized to verify possible differences in the meat fatty acid profile due to the supplementation.

Keywords: beef cattle, carcass, grazing, shear force, supplementation

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