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Effect of genetic group, sex and production system on the sensory acceptance of beef from crossbred animals

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Crossbreeding of two or more breeds from *Bos taurus* and *Bos indicus* species is an alternative for obtaining high quality meat from adapted animals to tropical climates. Sensory attributes of beef are very important in relation to consumer's point of view, mainly regarding to its tenderness and flavour. This study aimed to evaluate the sensory acceptance of beef from crossbred heifers and steers, the progeny of Angus and Limousin bulls with 1/2 Angus x 1/2 Nellore or 1/2 Simmental x 1/2 Nellore cows (genetic group), finished on pasture or feedlot (system production). After slaughtering the animals in a commercial abattoir, carcasses were chilled overnight at 2°C. At 24 hours post mortem, the left half-carcass was cut between the 12 and 13th ribs and 2.5 cm steaks were removed for sensory analyses. Steaks were cooked in a combined oven at 170°C, until reaching an internal temperature of 75°C. Each steak was cut into 1.5 cm cubes and was randomly assigned to 50 non-trained panellists. Attribute ratings were collected using nine-point hedonic scales (1=dislike extremely; 9=like extremely) for flavour, texture (tenderness) and overall acceptance. Flavour acceptance values ranged from 6.9 to 7.9 (like moderately to like very much); texture, from 6.0 to 8.0 (like slightly to like very much) and overall acceptance, from 6.4 to 8.0 (like slightly to like very much). Beef from animals finished on feedlot showed higher scores ($P<0.05$) for flavour acceptance and no interaction between the studied factors was found for this attribute. For texture acceptance, interactions between system production x sex, genetic group x sex, and genetic group x system production ($P<0.05$) were found. For overall acceptance, an interaction between sex and system production was found. Limousin bull x 1/2 Simmental x 1/2 Nellore cow steers finished on pasture showed the lowest acceptance values for all attributes.

Keywords: beef, acceptance, genetic groups, system production