Carcass characteristics and profitability of young grain-fed *Bos indicus* entire male cattle

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Abstract. Beef cattle enterprises can benefit from the highly efficient, fast growing characteristics of entire male cattle. We tested the hypothesis that young bulls would produce a greater carcass value than steers of the same chronological age in a north Australian production system. The experiment analysed carcass and meat quality parameters and the subsequent grading and gross values between *Bos indicus* bulls and steers that were either –homozygous, heterozygous or +homozygous for the calpastatin gene. Overall bulls produced a heavier carcass (P=0.005) that had less marbling (P=0.001) and had greater ossification scores (P=0.007) when compared to steers. Bulls also produced *M. Longissimus dorsi* that were less tender after aging for 14 days (P=0.001) and 28 days (P=0.005) compared to steers. Bulls that were either heterozygous (P<0.05) or +homozygous (P<0.05) for the calpastatin gene were heavier than steers of similar genotypes. Steers and bulls that were –homozygous produced the lightest carcass weights. Bulls produced a carcass that had a superior gross value when compared to steers (P=0.009). We concluded that bulls that are either heterozygous or +homozygous for the calpastatin gene can be produced profitably from a northern beef enterprise in accordance with domestic market grain fed yearling specifications.

The full paper is being submitted for a scientific journal publication.
Please contact the corresponding author for further information.