

Fatty acid composition of intramuscular fat of bulls and steers

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Abstract

The aim of this trial was to evaluate the influence of castration on fatty acid composition of intramuscular fat. Twenty-four bull calves of Mertolenga breed were randomly assigned to two groups: castrates and intact males. Castration was done at weaning (6 to 8 months of age). After weaning, all animals grazed a rye-grass pasture through 1 year and were then placed in a feed-lot and fed a finishing diet. Three animals of each treatment were slaughtered after a period of 0 (pasture only), 50, 100 and 150 days of feed-lot feeding. All the animals were subjected to the same feeding and management regimes. Fatty acid composition of the intramuscular fat was analyzed in samples of muscle *Longissimus lumborum* taken after 7 days of ageing.

After adjustment for equal intramuscular fat, entire males had significant higher values of $C_{17:0}$, $C_{18:1 \text{ trans}}$, $C_{18:2 \text{ n-6}}$, P/S , $n-6/n-3$ and $C_{18:2 \text{ n-6}}/C_{20:4 \text{ n-6}}$ ratios and lower values of $C_{16:0}$ and $C_{18:1 \text{ cis-9}}$, indicating that castration has an effect on the fatty acid composition of intramuscular fat of *Longissimus lumborum*.

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