



Effects of calcium chloride on sensorial characteristics of adult beef meat

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Sensorial characteristics of chemical tenderized beef meat with calcium chloride were evaluated on each raw meat and heat-treated after different periods of aging at different temperatures. Beef cuts were injected with distilled water (10% w/w), 0.4 M sodium chloride (10% w/w), 0.2 M calcium chloride (10% w/w) and 0.4 M calcium chloride (10% w/w). Effects generated by injecting samples with sodium chloride and calcium chloride on sensorial characteristics of beef meat were determined after 0, 24 and 48 hours of storage at 40C and 150C. Non-injected meat pieces were used as control samples. Calcium chloride treatments resulted in less beef flavour and more off-flavour than sodium chloride treatments. In addition, meat pieces injected with calcium chloride had lower scores of taste but higher scores of tenderness compared to the cuts of beef injected with sodium chloride or distilled water. Considering the effects on sensorial characteristics, we recommend injecting adult beef meat with 0.2 M solution of calcium chloride to improve the quality of meat.